

Market Sample #31

Contents

| | |
|------------------------------------|----|
| Test Results | 1 |
| Test Results - Rounded Values..... | 8 |
| Appendix A -- Test Results | |
| American Brands..... | 16 |
| Brown & Williamson Brands | 17 |
| Ligget & Myers Brands | 18 |
| Lorillard Brands | 19 |
| Philip Morris Brands | 20 |
| R.J. Reynolds Brands | 22 |
| Larus & Brother Brands | 24 |
| Appendix B -- Sorted Results | |
| "Tar" | 26 |
| "Nicotine" | 33 |
| Carbon Monoxide | 40 |
| Appendix C -- Butt Lengths | 47 |

PM3000762964

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-----------------|----------------------|--------------|
| *Alpine KFMSF | 17.1±0.2 | 1.14±0.02 | 16.5±0.2 |
| American Lights KFSP | 11.9±0.2 | 0.91±0.02 | 12.9±0.3 |
| American Lights 100's 100FSP | 13.3±0.2 | 1.08±0.01 | 13.9±0.2 |
| Belair KFMSF | 10.7±0.2 | 0.84±0.01 | 9.8±0.2 |
| Belair 100's 100FMSF | 8.8±0.2 | 0.67±0.02 | 9.1±0.2 |
| Benson & Hedges KFHP | 15.4±0.2 | 1.26±0.02 | 12.6±0.3 |
| *Benson & Hedges 100's 100FHP | 17.3±0.2 | 1.20±0.03 | 17.0±0.4 |
| *Benson & Hedges 100's 100FMHP | 17.4±0.2 | 1.22±0.01 | 17.2±0.3 |
| *Benson & Hedges 100's 100FSP | 17.3±0.2 | 1.22±0.02 | 16.4±0.4 |
| *Benson & Hedges 100's 100FMSF | 17.1±0.2 | 1.20±0.02 | 16.4±0.3 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FHP | 5.0±0.2 | 0.44±0.02 | 6.2±0.3 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FMHP | 5.2±0.1 | 0.47±0.01 | 6.2±0.2 |
| Benson & Hedges Lights 100's 100FSP | 10.7±0.2 | 0.83±0.02 | 13.0±0.3 |
| Benson & Hedges Lights 100's 100FMSF | 10.7±0.2 | 0.81±0.02 | 12.0±0.2 |
| Benson & Hedges Multifilter KFSP | 11.2±0.3 | 0.85±0.02 | 10.8±0.2 |
| Bright 100's 100FMSF | 6.0±0.1 | 0.44±0.01 | 10.3±0.3 |
| Cambridge Full Flavor KFSP | 17.1±0.3 | 1.09±0.01 | 16.1±0.3 |
| Cambridge Full Flavor 100's 100FSP | 17.2±0.3 | 1.17±0.02 | 16.0±0.3 |
| Cambridge Lights KFSP | 12.3±0.2 | 0.85±0.01 | 12.7±0.3 |
| Cambridge Lights KFMSF | 11.9±0.2 | 0.84±0.02 | 12.1±0.3 |
| Cambridge Lights 100's 100FSP | 12.0±0.2 | 0.87±0.02 | 14.5±0.4 |
| Cambridge Lights 100's 100FMSF | 11.9±0.2 | 0.86±0.01 | 14.6±0.4 |
| Cambridge Ultra Low Tar 100's 100FSP | 4.7±0.2 | 0.41±0.01 | 6.6±0.3 |
| Camel RNFSF | 22.0±0.3 | 1.39±0.02 | 14.2±0.4 |
| Camel Filters KFHP | 16.8±0.2 | 1.06±0.02 | 16.6±0.3 |
| Camel Filters KFSP | 15.6±0.3 | 1.01±0.02 | 15.4±0.2 |
| Camel Filters 100's 100FSP | 17.5±0.2 | 1.06±0.01 | 18.7±0.3 |
| Camel Lights KFHP | 9.9±0.2 | 0.64±0.01 | 11.8±0.3 |
| Camel Lights KFSP | 8.8±0.2 | 0.65±0.01 | 11.3±0.3 |
| Camel Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 15.0±0.3 |
| Capri 100FHP | 9.2±0.2 | 0.78±0.02 | 6.4±0.2 |
| Capri 100FMHP | 8.9±0.2 | 0.73±0.02 | 6.0±0.2 |
| Carlton KFHP | <0.5 | <0.05 | <0.5 |
| Carlton KFSP | 1.3±0.1 | 0.15±0.01 | 2.4±0.1 |
| Carlton 100's 100FHP | 0.7±0.1 | 0.10±0.01 | 1.1±0.1 |
| Carlton 100's 100FMHP | 0.6±0.1 | 0.10±0.01 | 1.0±0.1 |
| Carlton 100's 100FSP | 3.4±0.1 | 0.35±0.01 | 4.6±0.2 |
| Carlton 100's 100FMSF | 4.5±0.1 | 0.42±0.01 | 6.4±0.2 |
| Carlton 120's 120FSP | 6.5±0.2 | 0.62±0.02 | 5.6±0.2 |
| Carlton 120's 120FMSF | 6.2±0.2 | 0.62±0.03 | 5.5±0.2 |
| Century 25's (25) KFSP | 15.3±0.3 | 0.99±0.02 | 17.8±0.3 |
| Century 25's 100's 100FSP | 17.5±0.3 | 1.13±0.02 | 20.9±0.5 |
| Century 25's Lights (25) KFSP | 9.7±0.2 | 0.70±0.02 | 11.8±0.3 |
| Century 25's Lights 100's 100FSP | 11.9±0.3 | 0.89±0.02 | 13.4±0.3 |
| Century 25's Menthol Lights 100's 100FMSF | 11.5±0.2 | 0.84±0.01 | 13.2±0.3 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|------------------------------------|-----------------|----------------------|--------------|
| Chesterfield RNFSP | 20.0±0.5 | 1.30±0.03 | 13.3±0.4 |
| Chesterfield KNFSP | 24.2±0.5 | 1.65±0.04 | 15.3±0.5 |
| Doral Full Flavor KFSP | 17.4±0.2 | 0.92±0.01 | 19.6±0.4 |
| Doral Full Flavor 100's 100FSP | 14.8±0.2 | 0.84±0.01 | 17.2±0.3 |
| Doral Lights KFSP | 12.1±0.3 | 0.67±0.02 | 14.5±0.4 |
| Doral Menthol Lights KFMSF | 11.7±0.2 | 0.64±0.01 | 14.0±0.2 |
| Doral Lights 100's 100FSP | 11.3±0.3 | 0.70±0.02 | 12.9±0.3 |
| Doral Menthol Lights 100's 100FMSP | 12.1±0.3 | 0.73±0.01 | 13.7±0.3 |
| Doral Ultra Lights 100's 100FSP | 6.7±0.3 | 0.48±0.02 | 11.7±0.5 |
| English Ovals KNFHP | 23.8±0.6 | 1.87±0.04 | 15.6±0.5 |
| Eve Slim Lights 100's 100FHP | 12.8±0.2 | 1.03±0.02 | 11.0±0.2 |
| Eve Slim Lights 100's 100FMHP | 12.6±0.3 | 1.00±0.02 | 10.8±0.3 |
| Eve Lights 120's 120FHP | 13.0±0.4 | 1.12±0.03 | 11.6±0.5 |
| Eve Lights 120's 120FMHP | 13.5±0.2 | 1.17±0.02 | 12.0±0.3 |
| Falcon Lights KFSP | 11.2±0.2 | 0.77±0.02 | 11.2±0.3 |
| Falcon Lights KFMSF | 10.2±0.3 | 0.78±0.02 | 11.9±0.4 |
| Falcon Lights 100's 100FSP | 12.1±0.2 | 0.85±0.02 | 14.8±0.4 |
| Falcon Lights 100's 100FMSP | 8.9±0.2 | 0.73±0.02 | 11.0±0.3 |
| Harley Davidson KFSP | 14.1±0.3 | 0.98±0.02 | 16.3±0.4 |
| Herbert Tareyton KNFSP | 25.1±0.9 | 1.58±0.03 | 17.8±0.4 |
| Kent Golden Lights KFHP | 8.8±0.3 | 0.78±0.02 | 9.7±0.4 |
| Kent Golden Lights KFSP | 8.5±0.2 | 0.74±0.02 | 9.6±0.3 |
| Kent Golden Lights KFMSF | 8.3±0.3 | 0.75±0.02 | 9.1±0.4 |
| Kent Golden Lights 100s 100FHP | 10.2±0.2 | 0.91±0.02 | 11.2±0.4 |
| Kent Golden Lights 100s 100FSP | 9.6±0.3 | 0.86±0.02 | 10.5±0.4 |
| Kent Golden Lights 100s 100FMSP | 9.3±0.2 | 0.85±0.02 | 10.0±0.3 |
| Kent KFHP | 11.3±0.2 | 0.86±0.02 | 12.9±0.3 |
| Kent KFSP | 12.0±0.2 | 0.88±0.02 | 13.9±0.3 |
| Kent 100s 100FSP | 13.6±0.3 | 1.02±0.02 | 14.7±0.4 |
| Kent 100s 100FMSP | 14.0±0.2 | 1.04±0.01 | 14.4±0.3 |
| Kent III KFSP | 3.4±0.2 | 0.35±0.02 | 4.3±0.2 |
| Kent III 100s 100FHP | 5.0±0.2 | 0.50±0.03 | 6.8±0.3 |
| Kent III 100s 100FSP | 4.7±0.2 | 0.45±0.01 | 6.6±0.3 |
| Kool RNFMSF | 21.5±0.8 | 1.36±0.03 | 14.5±0.2 |
| Kool KFMSF | 16.2±0.4 | 1.12±0.03 | 16.4±0.4 |
| Kool KFMSF | 16.8±0.3 | 1.14±0.02 | 16.8±0.3 |
| Kool Super Longs 100's 100FMSP | 16.7±0.3 | 1.25±0.02 | 17.0±0.3 |
| Kool Lights KFMSF | 8.2±0.2 | 0.69±0.02 | 9.0±0.2 |
| Kool Lights 100's 100FMSP | 8.5±0.2 | 0.73±0.01 | 10.0±0.3 |
| Kool Milds KFMSF | 11.6±0.3 | 0.88±0.02 | 11.3±0.3 |
| Kool Milds KFMSF | 12.3±0.3 | 0.93±0.02 | 13.1±0.3 |
| Kool Milds 100's 100FMSP | 12.0±0.3 | 0.95±0.02 | 12.6±0.4 |
| Kool Ultra KFMSF | 2.2±0.2 | 0.21±0.02 | 2.7±0.2 |
| Kool Ultra 100's 100FMSP | 5.0±0.3 | 0.45±0.02 | 5.2±0.3 |
| L & M KFSP | 13.7±0.2 | 1.08±0.02 | 12.9±0.3 |
| L & M Super 100 100FSP | 13.9±0.2 | 1.12±0.02 | 14.2±0.3 |
| L & M Long Lights 100FSP | 7.8±0.2 | 0.80±0.02 | 6.3±0.2 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| L & M 30's Lights 100's 100FSP | 12.6±0.3 | 1.06±0.02 | 10.7±0.3 |
| Lark KFSP | 14.3±0.3 | 1.11±0.03 | 13.3±0.3 |
| Lark 100FSP | 14.7±0.2 | 1.22±0.02 | 14.0±0.2 |
| Lark Lights KFSP | 13.4±0.3 | 1.03±0.02 | 13.3±0.3 |
| Lark Light 100's 100FSP | 13.9±0.3 | 1.15±0.03 | 14.5±0.5 |
| Lucky Strike RNFSP | 24.4±0.5 | 1.52±0.02 | 16.5±0.3 |
| Lucky Strike KFHP | 12.1±0.2 | 0.92±0.02 | 12.8±0.4 |
| Lucky Strike KFSP | 11.8±0.3 | 0.89±0.02 | 12.6±0.3 |
| Lucky Strike Filters 100's 100FSP | 11.9±0.2 | 0.96±0.02 | 12.7±0.2 |
| Lucky Strike Menthol 100's 100FMSP | 11.8±0.1 | 0.96±0.02 | 12.3±0.2 |
| Lucky Strike Lights KFSP | 8.4±0.3 | 0.68±0.02 | 10.2±0.3 |
| Lucky Strike Lights 100's 100FSP | 8.9±0.2 | 0.74±0.01 | 10.0±0.3 |
| Magna KFHP | 14.1±0.3 | 0.90±0.01 | 16.3±0.4 |
| Magna KFSP | 13.9±0.2 | 0.91±0.02 | 14.9±0.2 |
| Magna Lites KFSP | 9.1±0.2 | 0.64±0.01 | 13.7±0.2 |
| Malibu Filters KFSP | 16.4±0.3 | 1.18±0.03 | 13.6±0.3 |
| Malibu Menthol KFMSP | 17.2±0.2 | 1.24±0.02 | 14.8±0.2 |
| Carlton KFMSP | 0.6±0.1 | 0.09±0.01 | 1.4±0.1 |
| Malibu 100's 100FSP | 13.9±0.3 | 1.10±0.02 | 13.4±0.3 |
| Malibu Menthol 100's 100FMSP | 11.6±0.2 | 0.94±0.02 | 12.5±0.3 |
| Malibu Lights KFSP | 10.2±0.2 | 0.79±0.01 | 10.8±0.3 |
| Malibu Lights 100's 100FSP | 9.1±0.2 | 0.75±0.02 | 10.6±0.4 |
| Marlboro KFHP | 17.0±0.2 | 1.14±0.02 | 15.2±0.3 |
| Marlboro KFSP | 17.4±0.2 | 1.17±0.02 | 16.9±0.4 |
| *Marlboro KFMSP | 17.1±0.3 | 1.18±0.01 | 15.3±0.2 |
| Marlboro 100's 100FHP | 17.0±0.4 | 1.22±0.03 | 16.9±0.6 |
| Marlboro 100's 100FSP | 17.1±0.3 | 1.22±0.02 | 16.5±0.4 |
| Marlboro 25's KFSP | 17.2±0.3 | 1.13±0.02 | 15.9±0.3 |
| Marlboro Lights KFHP | 11.0±0.2 | 0.82±0.02 | 12.4±0.3 |
| Marlboro Lights KFMHP | 10.2±0.2 | 0.78±0.02 | 11.2±0.3 |
| Marlboro Lights KFSP | 11.2±0.2 | 0.83±0.02 | 12.2±0.3 |
| Marlboro Lights KFMSP | 9.9±0.2 | 0.77±0.01 | 10.4±0.3 |
| Marlboro Lights 100's 100FHP | 10.8±0.2 | 0.85±0.02 | 12.3±0.3 |
| Marlboro Lights 100's 100FHP | 10.2±0.2 | 0.81±0.02 | 11.2±0.4 |
| Marlboro Lights 100's 100FSP | 11.0±0.2 | 0.85±0.02 | 13.0±0.4 |
| Marlboro Lights 100's 100FMSP | 10.9±0.1 | 0.86±0.01 | 12.0±0.3 |
| Marlboro Lights 25's KFSP | 11.2±0.2 | 0.80±0.02 | 12.4±0.3 |
| Marlboro 100's Red 100FHP | 16.4±0.3 | 1.19±0.02 | 16.3±0.4 |
| Marlboro 100's Red 100FSP | 16.5±0.2 | 1.19±0.02 | 17.0±0.2 |
| Max 120s 120FSP | 17.1±0.4 | 1.34±0.03 | 17.7±0.4 |
| Max 120s 120FMSP | 17.2±0.4 | 1.38±0.03 | 17.0±0.5 |
| Merit KFHP | 7.8±0.2 | 0.60±0.01 | 9.8±0.2 |
| Merit KFSP | 7.6±0.2 | 0.59±0.01 | 9.8±0.3 |
| Merit KFMSP | 7.7±0.2 | 0.58±0.01 | 10.0±0.3 |
| Merit 100's 100FSP | 10.0±0.2 | 0.80±0.02 | 11.8±0.3 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---------------------------------------|-----------------|----------------------|--------------|
| Merit 100's 100FMSP | 10.1±0.2 | 0.78±0.02 | 12.0±0.3 |
| Merit Ultra Lights KFSP | 4.4±0.2 | 0.43±0.01 | 5.5±0.2 |
| Merit Ultra Lights KFMSP | 4.5±0.1 | 0.42±0.01 | 5.9±0.2 |
| Merit Ultra Lights 100's 100FSP | 5.3±0.1 | 0.50±0.01 | 7.4±0.2 |
| Merit Ultra Lights 100's 100FMSP | 6.0±0.2 | 0.53±0.02 | 8.2±0.3 |
| More 120s 120FSP | 16.5±0.4 | 1.19±0.02 | 21.5±0.4 |
| More 120s 120FMSP | 16.6±0.3 | 1.28±0.03 | 22.0±0.5 |
| More Lights 100s 100FHP | 10.0±0.2 | 0.78±0.02 | 10.7±0.3 |
| More Lights 100s 100FMHP | 9.0±0.3 | 0.69±0.03 | 10.2±0.3 |
| More Lights 120s 120FSP | 12.9±0.2 | 0.98±0.01 | 20.2±0.5 |
| More Lights 120s 120FMSP | 12.2±0.4 | 0.99±0.03 | 19.6±0.5 |
| Newport KFMHP | 15.7±0.2 | 1.17±0.02 | 16.5±0.3 |
| Newport KFMSP | 17.2±0.4 | 1.26±0.02 | 18.3±0.5 |
| Newport 100's 100FMHP | 19.2±0.2 | 1.46±0.02 | 19.4±0.4 |
| Newport 100's 100FMSP | 19.3±0.3 | 1.47±0.03 | 19.4±0.4 |
| Newport 25's KFMSP | 17.2±0.2 | 1.28±0.02 | 18.2±0.4 |
| Newport 25's 100FMSP | 19.5±0.3 | 1.48±0.02 | 19.8±0.3 |
| Newport Lights KFMHP | 8.6±0.2 | 0.73±0.02 | 9.5±0.3 |
| Newport Lights KFMSP | 8.3±0.3 | 0.75±0.02 | 9.1±0.3 |
| Newport Lights 100's 100FMHP | 9.2±0.3 | 0.84±0.02 | 9.9±0.3 |
| Newport Lights 100's 100FMSP | 9.0±0.3 | 0.83±0.02 | 9.5±0.4 |
| Newport Stripes 100FHP | 12.3±0.3 | 0.94±0.02 | 16.6±0.4 |
| Newport Stripes 100FMHP | 12.2±0.2 | 0.91±0.02 | 16.5±0.2 |
| Newport Stripes Slim Lights 100FMHP | 9.3±0.2 | 0.76±0.02 | 11.4±0.2 |
| Now KFHP | <0.5 | <0.05 | <0.5 |
| Now KFSP | 1.0±0.1 | 0.14±0.01 | 2.3±0.1 |
| Now KFMSP | 1.1±0.1 | 0.13±0.01 | 2.3±0.1 |
| Now 100s 100FHP | <0.5 | <0.05 | <0.5 |
| Now 100s 100FSP | 1.9±0.1 | 0.21±0.01 | 3.1±0.2 |
| Now 100s 100FMSP | 2.5±0.1 | 0.26±0.01 | 4.3±0.2 |
| Old Gold Straights KNFSP | 26.9±0.6 | 1.89±0.05 | 18.7±0.5 |
| Old Gold Filters KFSP | 16.8±0.2 | 1.24±0.02 | 18.1±0.3 |
| Old Gold Filter 100's 100FSP | 19.7±0.3 | 1.50±0.03 | 19.6±0.4 |
| Old Gold Lights KFSP | 9.3±0.2 | 0.81±0.02 | 10.9±0.3 |
| Old Gold Lights 100s 100FSP | 12.3±0.2 | 0.91±0.02 | 17.0±0.3 |
| Pall Mall KNFSP | 24.9±0.3 | 1.64±0.02 | 16.6±0.4 |
| Pall Mall 25's KNFSP | 24.7±0.3 | 1.64±0.03 | 16.5±0.3 |
| Pall Mall 100's 100FSP | 17.0±0.3 | 1.28±0.02 | 17.1±0.3 |
| Pall Mall Lights 100's 100FSP | 10.3±0.2 | 0.84±0.02 | 12.0±0.3 |
| Pall Mall Light 100's Low Tar 100FMSP | 13.3±0.2 | 1.08±0.02 | 13.1±0.3 |
| Pall Mall Red Filters KFSP | 13.6±0.3 | 1.02±0.02 | 12.6±0.3 |
| Pall Mall Red Filters 100's 100FSP | 13.8±0.3 | 1.07±0.02 | 14.0±0.2 |
| Pall Mall Red Lights KFSP | 10.3±0.3 | 0.81±0.02 | 10.7±0.3 |
| Pall Mall Red Lights 100's 100FSP | 11.1±0.2 | 0.88±0.02 | 12.2±0.4 |
| Parliament Lights KFHP | 9.5±0.2 | 0.72±0.02 | 10.3±0.4 |
| Parliament Lights KFSP | 9.1±0.2 | 0.71±0.02 | 10.4±0.2 |
| Parliament Lights 100's 100FSP | 12.0±0.2 | 0.95±0.02 | 12.7±0.2 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| Philip Morris Commander KNFSP | 26.3±0.5 | 1.61±0.03 | 16.2±0.5 |
| Philip Morris International 100FHP | 16.8±0.4 | 1.15±0.02 | 15.6±0.4 |
| Philip Morris International 100FMHP..... | 16.9±0.2 | 1.08±0.02 | 16.2±0.4 |
| Players RNFHP..... | 25.2±0.4 | 1.74±0.03 | 15.9±0.4 |
| Players KFHP..... | 11.7±0.2 | 0.83±0.02 | 12.2±0.2 |
| Players KFMHP | 11.9±0.2 | 0.82±0.01 | 12.3±0.2 |
| Players 100's 100FHP | 13.9±0.2 | 0.98±0.02 | 12.9±0.3 |
| Players 100's 100FMHP | 14.0±0.2 | 0.98±0.02 | 12.7±0.3 |
| Players Lights 25's KFSP..... | 10.0±0.2 | 0.72±0.02 | 11.1±0.2 |
| Players Lights 25's KFMSP..... | 10.0±0.2 | 0.71±0.01 | 11.1±0.4 |
| Players 25's Lights 100's 100FSP..... | 11.9±0.3 | 0.86±0.02 | 14.1±0.4 |
| Players 25's Lights 100's 100FMSP | 11.4±0.2 | 0.81±0.01 | 13.7±0.3 |
| Raleigh KNFSP | 23.8±0.5 | 1.40±0.03 | 16.6±0.4 |
| Raleigh KFSP | 15.5±0.4 | 0.97±0.03 | 14.7±0.3 |
| Raleigh 100's 100FSP..... | 15.5±0.3 | 0.99±0.02 | 16.0±0.3 |
| Raleigh Lights KFSP | 11.4±0.2 | 0.87±0.02 | 13.1±0.3 |
| Raleigh Lights 100's 100FSP..... | 12.2±0.3 | 0.94±0.02 | 14.3±0.3 |
| Richland 20's KFSP | 16.3±0.3 | 1.13±0.02 | 16.0±0.3 |
| Richland 20's KFMSP | 16.4±0.4 | 1.05±0.02 | 16.1±0.3 |
| Richland 20's 100's 100FSP..... | 16.6±0.3 | 1.23±0.02 | 17.3±0.4 |
| Richland 20's Menthol 100's 100FMSP..... | 16.7±0.3 | 1.15±0.02 | 17.1±0.3 |
| Richland 20's Lights KFSP | 11.7±0.3 | 0.90±0.02 | 13.5±0.3 |
| Richland 20's Lights 100's 100FSP..... | 12.1±0.2 | 0.90±0.02 | 14.2±0.4 |
| Richland (25) KFSP..... | 16.6±0.2 | 1.18±0.02 | 15.8±0.2 |
| Richland (25) KFMSP..... | 16.2±0.3 | 1.09±0.02 | 15.6±0.3 |
| Richland 100's (25) 100FSP | 17.0±0.3 | 1.28±0.02 | 17.3±0.4 |
| Richland 100's (25) 100FMSP | 16.0±0.3 | 1.16±0.02 | 16.3±0.4 |
| Richland Lights (25) KFSP..... | 11.5±0.2 | 0.89±0.02 | 12.7±0.3 |
| Richland Lights (25) 100's 100FSP | 12.4±0.2 | 0.94±0.02 | 14.0±0.2 |
| Ritz 100 100FHP | 10.4±0.3 | 0.78±0.02 | 11.5±0.4 |
| Ritz 100 100FMHP | 11.1±0.3 | 0.81±0.02 | 11.5±0.3 |
| Salem KFMSP | 15.9±0.3 | 1.04±0.02 | 16.7±0.3 |
| Salem 100's 100FMSP | 16.8±0.3 | 1.19±0.02 | 16.1±0.3 |
| Salem Lights KFMSP | 9.8±0.2 | 0.72±0.02 | 12.6±0.2 |
| Salem Lights 100's 100FMHP | 11.3±0.2 | 0.86±0.02 | 11.6±0.2 |
| Salem Lights 100's 100FMSP..... | 9.3±0.3 | 0.74±0.02 | 11.1±0.4 |
| Salem Slim Lights 100's 100FMHP | 9.5±0.2 | 0.77±0.02 | 10.2±0.3 |
| Salem Ultra Lights KFMSP..... | 4.9±0.1 | 0.43±0.01 | 7.7±0.2 |
| Salem Ultra Lights 100's 100FMSP | 5.1±0.1 | 0.45±0.01 | 8.0±0.2 |
| Saratoga 120's 120FHP..... | 14.7±0.2 | 1.07±0.02 | 14.8±0.3 |
| Saratoga 120's 120FMHP..... | 14.7±0.3 | 1.07±0.02 | 14.8±0.4 |
| Satin 100FSP..... | 11.4±0.3 | 0.97±0.02 | 13.1±0.4 |
| Satin 100FMSP | 11.4±0.3 | 0.97±0.02 | 13.3±0.4 |
| Silva Thins Filters 100FHP | 12.2±0.2 | 0.97±0.02 | 12.5±0.3 |
| Silva Thins Menthol 100FMHP..... | 11.1±0.2 | 0.90±0.01 | 11.7±0.3 |
| Silva Thins 100FSP..... | 11.7±0.2 | 0.98±0.02 | 10.0±0.2 |
| Silva Thins Menthol 100FMSP..... | 12.3±0.3 | 1.05±0.02 | 10.5±0.3 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| Spring 100's 100FMSP | 19.3±0.2 | 1.49±0.03 | 19.0±0.2 |
| Tall 120s 120FSP | 20.4±0.3 | 1.64±0.03 | 20.2±0.4 |
| Tall 120s 120FMSP | 18.0±0.3 | 1.57±0.03 | 16.5±0.5 |
| Tareyton KFSP | 14.3±0.3 | 0.98±0.02 | 15.9±0.3 |
| Tareyton 100's 100FSP | 14.1±0.2 | 1.02±0.02 | 16.8±0.4 |
| Tareyton Lights KFSP | 5.2±0.2 | 0.44±0.01 | 6.0±0.2 |
| Tareyton Long Lights 100FSP | 8.1±0.2 | 0.68±0.01 | 8.8±0.3 |
| Triumph KFSP | 3.1±0.1 | 0.32±0.02 | 3.8±0.2 |
| Triumph KFMSP | 3.5±0.2 | 0.34±0.02 | 4.3±0.2 |
| Triumph 100s 100FSP | 5.3±0.3 | 0.50±0.02 | 7.4±0.4 |
| Triumph 100s 100FMSP | 5.4±0.2 | 0.52±0.01 | 7.5±0.2 |
| True KFSP | 5.1±0.2 | 0.48±0.02 | 6.4±0.3 |
| True KFMSP | 4.9±0.3 | 0.46±0.02 | 6.1±0.4 |
| True 100's 100FSP | 6.7±0.3 | 0.61±0.02 | 7.4±0.4 |
| True 100's 100FMSP | 6.7±0.4 | 0.61±0.03 | 7.3±0.5 |
| Vantage KFSP | 10.5±0.2 | 0.75±0.02 | 13.5±0.3 |
| Vantage KFMSP | 10.0±0.2 | 0.69±0.01 | 12.5±0.3 |
| Vantage 100s 100FSP | 8.8±0.2 | 0.63±0.02 | 12.5±0.3 |
| Vantage Menthol 100s 100FMSP | 8.3±0.2 | 0.61±0.01 | 12.7±0.3 |
| Vantage Ultra Lights KFSP | 5.5±0.1 | 0.47±0.01 | 8.0±0.2 |
| Vantage Ultra Lights 100s 100FSP | 5.8±0.1 | 0.50±0.01 | 9.5±0.2 |
| Viceroy KFSP | 15.3±0.3 | 0.97±0.02 | 14.5±0.3 |
| Viceroy Super Long 100's 100FSP | 15.9±0.3 | 1.14±0.02 | 15.1±0.3 |
| Viceroy Lights KFSP | 11.3±0.3 | 0.88±0.02 | 13.1±0.3 |
| Viceroy Lights 100's 100FSP | 11.9±0.2 | 0.92±0.02 | 14.1±0.3 |
| Virginia Slims 100FSP | 15.3±0.2 | 1.07±0.02 | 13.8±0.3 |
| Virginia Slims 100FMSP | 15.1±0.3 | 1.06±0.03 | 13.9±0.3 |
| Virginia Slims Lights 100FHP | 8.8±0.2 | 0.70±0.02 | 9.3±0.3 |
| Virginia Slims Lights 100FMHP | 8.5±0.2 | 0.69±0.02 | 9.2±0.2 |
| *Virginia Slims Lights 120's 120FHP | 14.8±0.2 | 1.09±0.02 | 15.2±0.3 |
| *Virginia Slims Lights 120's 120FMHP | 14.9±0.2 | 1.08±0.01 | 14.9±0.2 |
| Winston KFHP | 16.8±0.3 | 1.06±0.02 | 16.9±0.3 |
| Winston KFSP | 17.1±0.3 | 1.13±0.02 | 16.3±0.2 |
| Winston 100's 100FSP | 16.9±0.2 | 1.06±0.02 | 18.6±0.3 |
| Winston Lights KFHP | 9.7±0.2 | 0.63±0.01 | 11.7±0.3 |
| Winston Lights KFSP | 10.7±0.2 | 0.75±0.01 | 13.2±0.3 |
| Winston Lights 100's 100FHP | 9.9±0.2 | 0.72±0.02 | 11.8±0.3 |
| Winston Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 13.4±0.3 |
| Winston Ultra Lights KFSP | 5.5±0.2 | 0.46±0.01 | 8.5±0.2 |
| Winston Ultra Lights 100's 100FSP | 5.3±0.2 | 0.47±0.02 | 9.0±0.3 |
| Craven "A" KFHP | 15.8±0.4 | 1.15±0.02 | 16.3±0.4 |
| Craven "A" Filter Standard Size RFHP | 18.6±0.4 | 1.51±0.03 | 13.6±0.3 |
| Dunhill International 100FHP | 15.2±0.3 | 1.39±0.03 | 17.6±0.3 |
| Dunhill Menthol 100FMHP | 14.2±0.3 | 1.19±0.02 | 17.0±0.4 |
| Dunhill Menthol Mild 100FMHP | 10.4±0.2 | 0.96±0.02 | 12.5±0.2 |

*Retested brand

Tobacco Institute Testing Laboratory
Market Sample 31
Test Results

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-----------------|----------------------|--------------|
| Dunhill International Superior Mild 100FHP..... | 8.4±0.2 | 0.73±0.01 | 10.5±0.2 |
| Rothmans KFHP..... | 19.4±0.4 | 1.34±0.02 | 22.5±0.7 |
| Rothmans Special Mild KFHP..... | 13.6±0.2 | 1.03±0.02 | 15.5±0.4 |
| St. Moritz Filter 100s 100FSP..... | 14.9±0.2 | 1.08±0.02 | 15.5±0.2 |
| St. Moritz Menthol 100FMSP..... | 14.9±0.3 | 0.96±0.01 | 17.1±0.4 |

Appendix A -- Test Results

PM3000762972

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - American Brands**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| American Lights KFSP..... | 11.9±0.2 | 0.91±0.02 | 12.9±0.3 |
| American Lights 100's 100FSP..... | 13.3±0.2 | 1.08±0.01 | 13.9±0.2 |
| Carlton KFHP..... | < 0.5 | < 0.05 | < 0.5 |
| Carlton KFSP..... | 1.3±0.1 | 0.15±0.01 | 2.4±0.1 |
| Carlton KFMSF..... | 0.6±0.1 | 0.09±0.01 | 1.4±0.1 |
| Carlton 100's 100FHP..... | 0.7±0.1 | 0.10±0.01 | 1.1±0.1 |
| Carlton 100's 100FMHP..... | 0.6±0.1 | 0.10±0.01 | 1.0±0.1 |
| Carlton 100's 100FSP..... | 3.4±0.1 | 0.35±0.01 | 4.6±0.2 |
| Carlton 100's 100FMSP..... | 4.5±0.1 | 0.42±0.01 | 6.4±0.2 |
| Carlton 120's 120FSP..... | 6.5±0.2 | 0.62±0.02 | 5.6±0.2 |
| Carlton 120's 120FMSP..... | 6.2±0.2 | 0.62±0.03 | 5.5±0.2 |
| Herbert Tareyton KNFSP..... | 25.1±0.9 | 1.58±0.03 | 17.8±0.4 |
| Lucky Strike RNFSP..... | 24.4±0.5 | 1.52±0.02 | 16.5±0.3 |
| Lucky Strike KFHP..... | 12.1±0.2 | 0.92±0.02 | 12.8±0.4 |
| Lucky Strike KFSP..... | 11.8±0.3 | 0.89±0.02 | 12.6±0.3 |
| Lucky Strike Filters 100's 100FSP..... | 11.9±0.2 | 0.96±0.02 | 12.7±0.2 |
| Lucky Strike Menthol 100's 100FMSP..... | 11.8±0.1 | 0.96±0.02 | 12.3±0.2 |
| Lucky Strike Lights KFSP..... | 8.4±0.3 | 0.68±0.02 | 10.2±0.3 |
| Lucky Strike Lights 100's 100FSP..... | 8.9±0.2 | 0.74±0.01 | 10.0±0.3 |
| Malibu Filters KFSP..... | 16.4±0.3 | 1.18±0.03 | 13.6±0.3 |
| Malibu Menthol KFMSF..... | 17.2±0.2 | 1.24±0.02 | 14.8±0.2 |
| Malibu 100's 100FSP..... | 13.9±0.3 | 1.10±0.02 | 13.4±0.3 |
| Malibu Menthol 100's 100FMSP..... | 11.6±0.2 | 0.94±0.02 | 12.5±0.3 |
| Malibu Lights KFSP..... | 10.2±0.2 | 0.79±0.01 | 10.8±0.3 |
| Malibu Lights 100's 100FSP..... | 9.1±0.2 | 0.75±0.02 | 10.6±0.4 |
| Pall Mall KNFSP..... | 24.9±0.3 | 1.64±0.02 | 16.6±0.4 |
| Pall Mall 25's KNFSP..... | 24.7±0.3 | 1.64±0.03 | 16.5±0.3 |
| Pall Mall 100's 100FSP..... | 17.0±0.3 | 1.28±0.02 | 17.1±0.3 |
| Pall Mall Lights 100's 100FSP..... | 10.3±0.2 | 0.84±0.02 | 12.0±0.3 |
| Pall Mall Light 100's Low Tar 100FMSP..... | 13.3±0.2 | 1.08±0.02 | 13.1±0.3 |
| Pall Mall Red Filters KFSP..... | 13.6±0.3 | 1.02±0.02 | 12.6±0.3 |
| Pall Mall Red Filters 100's 100FSP..... | 13.8±0.3 | 1.07±0.02 | 14.0±0.2 |
| Pall Mall Red Lights KFSP..... | 10.3±0.3 | 0.81±0.02 | 10.7±0.3 |
| Pall Mall Red Lights 100's 100FSP..... | 11.1±0.2 | 0.88±0.02 | 12.2±0.4 |
| Silva Thins Filters 100FHP..... | 12.2±0.2 | 0.97±0.02 | 12.5±0.3 |
| Silva Thins Menthol 100FMHP..... | 11.1±0.2 | 0.90±0.01 | 11.7±0.3 |
| Silva Thins 100FSP..... | 11.7±0.2 | 0.98±0.02 | 10.0±0.2 |
| Silva Thins Menthol 100FMSP..... | 12.3±0.3 | 1.05±0.02 | 10.5±0.3 |
| Tall 120s 120FSP..... | 20.4±0.3 | 1.64±0.03 | 20.2±0.4 |
| Tall 120s 120FMSP..... | 18.0±0.3 | 1.57±0.03 | 16.5±0.5 |
| Tareyton KFSP..... | 14.3±0.3 | 0.98±0.02 | 15.9±0.3 |
| Tareyton 100's 100FSP..... | 14.1±0.2 | 1.02±0.02 | 16.8±0.4 |
| Tareyton Lights KFSP..... | 5.2±0.2 | 0.44±0.01 | 6.0±0.2 |
| Tareyton Long Lights 100FSP..... | 8.1±0.2 | 0.68±0.01 | 8.8±0.3 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - Brown & Williamson Brands

| Brand | Tar mg/cig | Nicotine mg/cig | CO mg/cig |
|---|---------------|--------------------|--------------|
| Belair KFMSP | 10.7±0.2 | 0.84±0.01 | 9.8±0.2 |
| Belair 100's 100FMSP | 8.8±0.2 | 0.67±0.02 | 9.1±0.2 |
| Capri 100FHP | 9.2±0.2 | 0.78±0.02 | 6.4±0.2 |
| Capri 100FMHP | 8.9±0.2 | 0.73±0.02 | 6.0±0.2 |
| Falcon Lights KFSP | 11.2±0.2 | 0.77±0.02 | 11.2±0.3 |
| Falcon Lights KFMSP | 10.2±0.3 | 0.78±0.02 | 11.9±0.4 |
| Falcon Lights 100's 100FSP | 12.1±0.2 | 0.85±0.02 | 14.8±0.4 |
| Falcon Lights 100's 100FMSP | 8.9±0.2 | 0.73±0.02 | 11.0±0.3 |
| Kool RNFMSF | 21.5±0.8 | 1.36±0.03 | 14.5±0.2 |
| Kool KFMHP | 16.2±0.4 | 1.12±0.03 | 16.4±0.4 |
| Kool KFMSP | 16.8±0.3 | 1.14±0.02 | 16.8±0.3 |
| Kool Super Longs 100's 100FMSP | 16.7±0.3 | 1.25±0.02 | 17.0±0.3 |
| Kool Lights KFMSP | 8.2±0.2 | 0.69±0.02 | 9.0±0.2 |
| Kool Lights 100's 100FMSP | 8.5±0.2 | 0.73±0.01 | 10.0±0.3 |
| Kool Milds KFMHP | 11.6±0.3 | 0.88±0.02 | 11.3±0.3 |
| Kool Milds KFMSP | 12.3±0.3 | 0.93±0.02 | 13.1±0.3 |
| Kool Milds 100's 100FMSP | 12.0±0.3 | 0.95±0.02 | 12.6±0.4 |
| Kool Ultra KFMSP | 2.2±0.2 | 0.21±0.02 | 2.7±0.2 |
| Kool Ultra 100's 100FMSP | 5.0±0.3 | 0.45±0.02 | 5.2±0.3 |
| Raleigh KNFSP | 23.8±0.5 | 1.40±0.03 | 16.6±0.4 |
| Raleigh KFSP | 15.5±0.4 | 0.97±0.03 | 14.7±0.3 |
| Raleigh 100's 100FSP | 15.5±0.3 | 0.99±0.02 | 16.0±0.3 |
| Raleigh Lights KFSP | 11.4±0.2 | 0.87±0.02 | 13.1±0.3 |
| Raleigh Lights 100's 100FSP | 12.2±0.3 | 0.94±0.02 | 14.3±0.3 |
| Richland 20's KFSP | 16.3±0.3 | 1.13±0.02 | 16.0±0.3 |
| Richland 20's KFMSP | 16.4±0.4 | 1.05±0.02 | 16.1±0.3 |
| Richland 20's 100's 100FSP | 16.6±0.3 | 1.23±0.02 | 17.3±0.4 |
| Richland 20's Menthol 100's 100FMSP | 16.7±0.3 | 1.15±0.02 | 17.1±0.3 |
| Richland 20's Lights KFSP | 11.7±0.3 | 0.90±0.02 | 13.5±0.3 |
| Richland 20's Lights 100's 100FSP | 12.1±0.2 | 0.90±0.02 | 14.2±0.4 |
| Richland (25) KFSP | 16.6±0.2 | 1.18±0.02 | 15.8±0.2 |
| Richland (25) KFMSP | 16.2±0.3 | 1.09±0.02 | 15.6±0.3 |
| Richland 100's (25) 100FSP | 17.0±0.3 | 1.28±0.02 | 17.3±0.4 |
| Richland 100's (25) 100FMSP | 16.0±0.3 | 1.16±0.02 | 16.3±0.4 |
| Richland Lights (25) KFSP | 11.5±0.2 | 0.89±0.02 | 12.7±0.3 |
| Richland Lights (25) 100's 100FSP | 12.4±0.2 | 0.94±0.02 | 14.0±0.2 |
| Viceroy KFSP | 15.3±0.3 | 0.97±0.02 | 14.5±0.3 |
| Viceroy Super Long 100's 100FSP | 15.9±0.3 | 1.14±0.02 | 15.1±0.3 |
| Viceroy Lights KFSP | 11.3±0.3 | 0.88±0.02 | 13.1±0.3 |
| Viceroy Lights 100's 100FSP | 11.9±0.2 | 0.92±0.02 | 14.1±0.3 |

Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - Liggett & Myers Brands

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--------------------------------------|-------------------------|------------------------------|----------------------|
| Chesterfield RNFSP | 20.0±0.5 | 1.30±0.03 | 13.3±0.4 |
| Chesterfield KNFSP | 24.2±0.5 | 1.65±0.04 | 15.3±0.5 |
| Eve Slim Lights 100's 100FHP | 12.8±0.2 | 1.03±0.02 | 11.0±0.2 |
| Eve Slim Lights 100's 100FMHP | 12.6±0.3 | 1.00±0.02 | 10.8±0.3 |
| Eve Lights 120's 120FHP | 13.0±0.4 | 1.12±0.03 | 11.6±0.5 |
| Eve Lights 120's 120FMHP | 13.5±0.2 | 1.17±0.02 | 12.0±0.3 |
| L & M KFSP..... | 13.7±0.2 | 1.08±0.02 | 12.9±0.3 |
| L & M Super 100 100FSP | 13.9±0.2 | 1.12±0.02 | 14.2±0.3 |
| L & M Long Lights 100FSP..... | 7.8±0.2 | 0.80±0.02 | 6.3±0.2 |
| L & M 30's Lights 100's 100FSP | 12.6±0.3 | 1.06±0.02 | 10.7±0.3 |
| Lark KFSP | 14.3±0.3 | 1.11±0.03 | 13.3±0.3 |
| Lark 100FSP | 14.7±0.2 | 1.22±0.02 | 14.0±0.2 |
| Lark Lights KFSP..... | 13.4±0.3 | 1.03±0.02 | 13.3±0.3 |
| Lark Light 100's 100FSP | 13.9±0.3 | 1.15±0.03 | 14.5±0.5 |

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - Lorillard Brands**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-----------------|----------------------|--------------|
| Harley Davidson KFSP | 14.1±0.3 | 0.98±0.02 | 16.3±0.4 |
| Kent Golden Lights KFHP | 8.8±0.3 | 0.78±0.02 | 9.7±0.4 |
| Kent Golden Lights KFSP | 8.5±0.2 | 0.74±0.02 | 9.6±0.3 |
| Kent Golden Lights KFMSP | 8.3±0.3 | 0.75±0.02 | 9.1±0.4 |
| Kent Golden Lights 100s 100FHP | 10.2±0.2 | 0.91±0.02 | 11.2±0.4 |
| Kent Golden Lights 100s 100FSP | 9.6±0.3 | 0.86±0.02 | 10.5±0.4 |
| Kent Golden Lights 100s 100FMSP | 9.3±0.2 | 0.85±0.02 | 10.0±0.3 |
| Kent KFHP | 11.3±0.2 | 0.86±0.02 | 12.9±0.3 |
| Kent KFSP | 12.0±0.2 | 0.88±0.02 | 13.9±0.3 |
| Kent 100s 100FSP | 13.6±0.3 | 1.02±0.02 | 14.7±0.4 |
| Kent 100s 100FMSP | 14.0±0.2 | 1.04±0.01 | 14.4±0.3 |
| Kent III KFSP | 3.4±0.2 | 0.35±0.02 | 4.3±0.2 |
| Kent III 100s 100FHP | 5.0±0.2 | 0.50±0.03 | 6.8±0.3 |
| Kent III 100s 100FSP | 4.7±0.2 | 0.45±0.01 | 6.6±0.3 |
| Max 120s 120FSP | 17.1±0.4 | 1.34±0.03 | 17.7±0.4 |
| Max 120s 120FMSP | 17.2±0.4 | 1.38±0.03 | 17.0±0.5 |
| Newport KFMHP | 15.7±0.2 | 1.17±0.02 | 16.5±0.3 |
| Newport KFMSP | 17.2±0.4 | 1.26±0.02 | 18.3±0.5 |
| Newport 100's 100FMHP | 19.2±0.2 | 1.46±0.02 | 19.4±0.4 |
| Newport 100's 100FMSP | 19.3±0.3 | 1.47±0.03 | 19.4±0.4 |
| Newport 25's KFMSP | 17.2±0.2 | 1.28±0.02 | 18.2±0.4 |
| Newport 25's 100FMSP | 19.5±0.3 | 1.48±0.02 | 19.8±0.3 |
| Newport Lights KFMHP | 8.6±0.2 | 0.73±0.02 | 9.5±0.3 |
| Newport Lights KFMSP | 8.3±0.3 | 0.75±0.02 | 9.1±0.3 |
| Newport Lights 100's 100FMHP | 9.2±0.3 | 0.84±0.02 | 9.9±0.3 |
| Newport Lights 100's 100FMSP | 9.0±0.3 | 0.83±0.02 | 9.5±0.4 |
| Newport Stripes 100FHP | 12.3±0.3 | 0.94±0.02 | 16.6±0.4 |
| Newport Stripes 100FMHP | 12.2±0.2 | 0.91±0.02 | 16.5±0.2 |
| Newport Stripes Slim Lights 100FMHP | 9.3±0.2 | 0.76±0.02 | 11.4±0.2 |
| Old Gold Straights KNFSP | 26.9±0.6 | 1.89±0.05 | 18.7±0.5 |
| Old Gold Filters KFSP | 16.8±0.2 | 1.24±0.02 | 18.1±0.3 |
| Old Gold Filter 100's 100FSP | 19.7±0.3 | 1.50±0.03 | 19.6±0.4 |
| Old Gold Lights KFSP | 9.3±0.2 | 0.81±0.02 | 10.9±0.3 |
| Old Gold Lights 100s 100FSP | 12.3±0.2 | 0.91±0.02 | 17.0±0.3 |
| Satin 100FSP | 11.4±0.3 | 0.97±0.02 | 13.1±0.4 |
| Satin 100FMSP | 11.4±0.3 | 0.97±0.02 | 13.3±0.4 |
| Spring 100's 100FMSP | 19.3±0.2 | 1.49±0.03 | 19.0±0.2 |
| Triumph KFSP | 3.1±0.1 | 0.32±0.02 | 3.8±0.2 |
| Triumph KFMSP | 3.5±0.2 | 0.34±0.02 | 4.3±0.2 |
| Triumph 100s 100FSP | 5.3±0.3 | 0.50±0.02 | 7.4±0.4 |
| Triumph 100s 100FMSP | 5.4±0.2 | 0.52±0.01 | 7.5±0.2 |
| True KFSP | 5.1±0.2 | 0.48±0.02 | 6.4±0.3 |
| True KFMSP | 4.9±0.3 | 0.46±0.02 | 6.1±0.4 |
| True 100's 100FSP | 6.7±0.3 | 0.61±0.02 | 7.4±0.4 |
| True 100's 100FMSP | 6.7±0.4 | 0.61±0.03 | 7.3±0.5 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - R.J. Reynolds Brands

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-----------------|----------------------|--------------|
| Bright 100s 100FMSP | 6.0±0.1 | 0.44±0.01 | 10.3±0.3 |
| Camel RNFSF | 22.0±0.3 | 1.39±0.02 | 14.2±0.4 |
| Camel Filters KFHP | 16.8±0.2 | 1.06±0.02 | 16.6±0.3 |
| Camel Filters KFSP | 15.6±0.3 | 1.01±0.02 | 15.4±0.2 |
| Camel Filters 100's 100FSP | 17.5±0.2 | 1.06±0.01 | 18.7±0.3 |
| Camel Lights KFHP | 9.9±0.2 | 0.64±0.01 | 11.8±0.3 |
| Camel Lights KFSP | 8.8±0.2 | 0.65±0.01 | 11.3±0.3 |
| Camel Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 15.0±0.3 |
| Century 25's (25) KFSP | 15.3±0.3 | 0.99±0.02 | 17.8±0.3 |
| Century 25's 100's 100FSP | 17.5±0.3 | 1.13±0.02 | 20.9±0.5 |
| Century 25's Lights (25) KFSP | 9.7±0.2 | 0.70±0.02 | 11.8±0.3 |
| Century 25's Lights 100's 100FSP | 11.9±0.3 | 0.89±0.02 | 13.4±0.3 |
| Century 25's Menthol Lights 100's 100FMSP | 11.5±0.2 | 0.84±0.01 | 13.2±0.3 |
| Doral Full Flavor KFSP | 17.4±0.2 | 0.92±0.01 | 19.6±0.4 |
| Doral Full Flavor 100's 100FSP | 14.8±0.2 | 0.84±0.01 | 17.2±0.3 |
| Doral Lights KFSP | 12.1±0.3 | 0.67±0.02 | 14.5±0.4 |
| Doral Menthol Lights KFMSP | 11.7±0.2 | 0.64±0.01 | 14.0±0.2 |
| Doral Lights 100's 100FSP | 11.3±0.3 | 0.70±0.02 | 12.9±0.3 |
| Doral Menthol Lights 100's 100FMSP | 12.1±0.3 | 0.73±0.01 | 13.7±0.3 |
| Doral Ultra Lights 100's 100FSP | 6.7±0.3 | 0.48±0.02 | 11.7±0.5 |
| Magna KFHP | 14.1±0.3 | 0.90±0.01 | 16.3±0.4 |
| Magna KFSP | 13.9±0.2 | 0.91±0.02 | 14.9±0.2 |
| Magna Lites KFSP | 9.1±0.2 | 0.64±0.01 | 13.7±0.2 |
| More 120s 120FSP | 16.5±0.4 | 1.19±0.02 | 21.5±0.4 |
| More 120s 120FMSP | 16.6±0.3 | 1.28±0.03 | 22.0±0.5 |
| More Lights 100s 100FHP | 10.0±0.2 | 0.78±0.02 | 10.7±0.3 |
| More Lights 100s 100FMHP | 9.0±0.3 | 0.69±0.03 | 10.2±0.3 |
| More Lights 120s 120FSP | 12.9±0.2 | 0.98±0.01 | 20.2±0.5 |
| More Lights 120s 120FMSP | 12.2±0.4 | 0.99±0.03 | 19.6±0.5 |
| Now KFHP | < 0.5 | < 0.05 | < 0.5 |
| Now KFSP | 1.0±0.1 | 0.14±0.01 | 2.3±0.1 |
| Now KFMSP | 1.1±0.1 | 0.13±0.01 | 2.3±0.1 |
| Now 100s 100FHP | < 0.5 | < 0.05 | < 0.5 |
| Now 100s 100FSP | 1.9±0.1 | 0.21±0.01 | 3.1±0.2 |
| Now 100s 100FMSP | 2.5±0.1 | 0.26±0.01 | 4.3±0.2 |
| Ritz 100 100FHP | 10.4±0.3 | 0.78±0.02 | 11.5±0.4 |
| Ritz 100 100FMHP | 11.1±0.3 | 0.81±0.02 | 11.5±0.3 |
| Salem KFMSP | 15.9±0.3 | 1.04±0.02 | 16.7±0.3 |
| Salem 100's 100FMSP | 16.8±0.3 | 1.19±0.02 | 16.1±0.3 |
| Salem Lights KFMSP | 9.8±0.2 | 0.72±0.02 | 12.6±0.2 |
| Salem Lights 100's 100FMHP | 11.3±0.2 | 0.86±0.02 | 11.6±0.2 |
| Salem Lights 100's 100FMSP | 9.3±0.3 | 0.74±0.02 | 11.1±0.4 |
| Salem Slim Lights 100's 100FMHP | 9.5±0.2 | 0.77±0.02 | 10.2±0.3 |
| Salem Ultra Lights KFMSP | 4.9±0.1 | 0.43±0.01 | 7.7±0.2 |
| Salem Ultra Lights 100's 100FMSP | 5.1±0.1 | 0.45±0.01 | 8.0±0.2 |
| Vantage KFSP | 10.5±0.2 | 0.75±0.02 | 13.5±0.3 |
| Vantage KFMSP | 10.0±0.2 | 0.69±0.01 | 12.5±0.3 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - R.J. Reynolds Brands**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-------------------------|------------------------------|----------------------|
| Vantage 100s 100FSP | 8.8±0.2 | 0.63±0.02 | 12.5±0.3 |
| Vantage Menthol 100s 100FMSP | 8.3±0.2 | 0.61±0.01 | 12.7±0.3 |
| Vantage Ultra Lights KFSP | 5.5±0.1 | 0.47±0.01 | 8.0±0.2 |
| Vantage Ultra Lights 100s 100FSP | 5.8±0.1 | 0.50±0.01 | 9.5±0.2 |
| Winston KFHP | 16.8±0.3 | 1.06±0.02 | 16.9±0.3 |
| Winston KFSP | 17.1±0.3 | 1.13±0.02 | 16.3±0.2 |
| Winston 100's 100FSP | 16.9±0.2 | 1.06±0.02 | 18.6±0.3 |
| Winston Lights KFHP | 9.7±0.2 | 0.63±0.01 | 11.7±0.3 |
| Winston Lights KFSP | 10.7±0.2 | 0.75±0.01 | 13.2±0.3 |
| Winston Lights 100's 100FHP | 9.9±0.2 | 0.72±0.02 | 11.8±0.3 |
| Winston Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 13.4±0.3 |
| Winston Ultra Lights KFSP | 5.5±0.2 | 0.46±0.01 | 8.5±0.2 |
| Winston Ultra Lights 100's 100FSP | 5.3±0.2 | 0.47±0.02 | 9.0±0.3 |

**Tobacco Institute Testing Laboratory
Market Sample 31
Test Results - Larus & Brother Brands**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-------------------------|------------------------------|----------------------|
| Craven A KFHP..... | 15.8±0.4 | 1.15±0.02 | 16.3±0.4 |
| Craven A Filter Standard Size RFHP..... | 18.6±0.4 | 1.51±0.03 | 13.6±0.3 |
| Dunhill International 100FHP..... | 15.2±0.3 | 1.39±0.03 | 17.6±0.3 |
| Dunhill Menthol 100FMHP..... | 14.2±0.3 | 1.19±0.02 | 17.0±0.4 |
| Dunhill Menthol Mild 100FMHP..... | 10.4±0.2 | 0.96±0.02 | 12.5±0.2 |
| Dunhill International Superior Mild 100FHP..... | 8.4±0.2 | 0.73±0.01 | 10.5±0.2 |
| Rothmans KFHP..... | 19.4±0.4 | 1.34±0.02 | 22.5±0.7 |
| Rothmans Special Mild KFHP..... | 13.6±0.2 | 1.03±0.02 | 15.5±0.4 |
| St. Moritz Filter 100s 100FSP..... | 14.9±0.2 | 1.08±0.02 | 15.5±0.2 |
| St. Moritz Menthol 100FMSP..... | 14.9±0.3 | 0.96±0.01 | 17.1±0.4 |

Appendix B -- Sorted Results

PM3000762980

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| Carlton KFHP | <0.5 | <0.05 | <0.5 |
| Now 100s 100FHP | <0.5 | <0.05 | <0.5 |
| Now KFHP | <0.5 | <0.05 | <0.5 |
| Now KFSP | 0.6±0.1 | 0.09±0.01 | 1.4±0.1 |
| Now KFMSF | 0.6±0.1 | 0.10±0.01 | 1.0±0.1 |
| Carlton KFMSF | 0.7±0.1 | 0.10±0.01 | 1.1±0.1 |
| Carlton 100's 100FMHP | 1.0±0.1 | 0.14±0.01 | 2.3±0.1 |
| Carlton 100's 100FHP | 1.1±0.1 | 0.13±0.01 | 2.3±0.1 |
| Carlton KFSP | 1.3±0.1 | 0.15±0.01 | 2.4±0.1 |
| Now 100s 100FSP | 1.9±0.1 | 0.21±0.01 | 3.1±0.2 |
| Kool Ultra KFMSF | 2.2±0.2 | 0.21±0.02 | 2.7±0.2 |
| Now 100s 100FMSP | 2.5±0.1 | 0.26±0.01 | 4.3±0.2 |
| Triumph KFSP | 3.1±0.1 | 0.32±0.02 | 3.8±0.2 |
| Carlton 100's 100FSP | 3.4±0.1 | 0.35±0.01 | 4.6±0.2 |
| Kent III KFSP | 3.4±0.2 | 0.35±0.02 | 4.3±0.2 |
| Triumph KFMSF | 3.5±0.2 | 0.34±0.02 | 4.3±0.2 |
| Merit Ultra Lights KFSP | 4.4±0.2 | 0.43±0.01 | 5.5±0.2 |
| Carlton 100's 100FMSP | 4.5±0.1 | 0.42±0.01 | 6.4±0.2 |
| Merit Ultra Lights KFMSF | 4.5±0.1 | 0.42±0.01 | 5.9±0.2 |
| Cambridge Ultra Low Tar 100's 100FSP | 4.7±0.2 | 0.41±0.01 | 6.6±0.3 |
| Kent III 100s 100FSP | 4.7±0.2 | 0.45±0.01 | 6.6±0.3 |
| True KFMSF | 4.9±0.3 | 0.46±0.02 | 6.1±0.4 |
| Salem Ultra Lights KFMSF | 4.9±0.1 | 0.43±0.01 | 7.7±0.2 |
| Kent III 100s 100FHP | 5.0±0.2 | 0.50±0.03 | 6.8±0.3 |
| Kool Ultra 100's 100FMSP | 5.0±0.3 | 0.45±0.02 | 5.2±0.3 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FHP | 5.0±0.2 | 0.44±0.02 | 6.2±0.3 |
| True KFSP | 5.1±0.2 | 0.48±0.02 | 6.4±0.3 |
| Salem Ultra Lights 100's 100FMSP | 5.1±0.1 | 0.45±0.01 | 8.0±0.2 |
| Tareyton Lights KFSP | 5.2±0.2 | 0.44±0.01 | 6.0±0.2 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FMHP | 5.2±0.1 | 0.47±0.01 | 6.2±0.2 |
| Merit Ultra Lights 100's 100FSP | 5.3±0.1 | 0.50±0.01 | 7.4±0.2 |
| Triumph 100s 100FSP | 5.3±0.3 | 0.50±0.02 | 7.4±0.4 |
| Winston Ultra Lights 100's 100FSP | 5.3±0.2 | 0.47±0.02 | 9.0±0.3 |
| Triumph 100s 100FMSP | 5.4±0.2 | 0.52±0.01 | 7.5±0.2 |
| Winston Ultra Lights KFSP | 5.5±0.2 | 0.46±0.01 | 8.5±0.2 |
| Vantage Ultra Lights KFSP | 5.5±0.1 | 0.47±0.01 | 8.0±0.2 |
| Vantage Ultra Lights 100s 100FSP | 5.8±0.1 | 0.50±0.01 | 9.5±0.2 |
| Merit Ultra Lights 100's 100FMSP | 6.0±0.2 | 0.53±0.02 | 8.2±0.3 |
| Bright 100s 100FMSP | 6.0±0.1 | 0.44±0.01 | 10.3±0.3 |
| Carlton 120's 120FMSP | 6.2±0.2 | 0.62±0.03 | 5.5±0.2 |
| Carlton 120's 120FSP | 6.5±0.2 | 0.62±0.02 | 5.6±0.2 |
| Doral Ultra Lights 100's 100FSP | 6.7±0.3 | 0.48±0.02 | 11.7±0.5 |
| True 100's 100FMSP | 6.7±0.4 | 0.61±0.03 | 7.3±0.5 |
| True 100's 100FSP | 6.7±0.3 | 0.61±0.02 | 7.4±0.4 |
| Merit KFSP | 7.6±0.2 | 0.59±0.01 | 9.8±0.3 |
| Merit KFMSF | 7.7±0.2 | 0.58±0.01 | 10.0±0.3 |
| L & M Long Lights 100FSP | 7.8±0.2 | 0.80±0.02 | 6.3±0.2 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-----------------|----------------------|--------------|
| Merit KFHP..... | 7.8±0.2 | 0.60±0.01 | 9.8±0.2 |
| Tareyton Long Lights 100FSP..... | 8.1±0.2 | 0.68±0.01 | 8.8±0.3 |
| Kool Lights KFMSP..... | 8.2±0.2 | 0.69±0.02 | 9.0±0.2 |
| Newport Lights KFMSP..... | 8.3±0.3 | 0.75±0.02 | 9.1±0.3 |
| Kent Golden Lights KFMSP..... | 8.3±0.3 | 0.75±0.02 | 9.1±0.4 |
| Vantage Menthol 100s 100FMSP..... | 8.3±0.2 | 0.61±0.01 | 12.7±0.3 |
| Dunhill International Superior Mild 100FHP..... | 8.4±0.2 | 0.73±0.01 | 10.5±0.2 |
| Lucky Strike Lights KFSP..... | 8.4±0.3 | 0.68±0.02 | 10.2±0.3 |
| Kent Golden Lights KFSP..... | 8.5±0.2 | 0.74±0.02 | 9.6±0.3 |
| Kool Lights 100's 100FMSP..... | 8.5±0.2 | 0.73±0.01 | 10.0±0.3 |
| Virginia Slims Lights 100FMHP..... | 8.5±0.2 | 0.69±0.02 | 9.2±0.2 |
| Newport Lights KFMHP..... | 8.6±0.2 | 0.73±0.02 | 9.5±0.3 |
| Vantage 100s 100FSP..... | 8.8±0.2 | 0.63±0.02 | 12.5±0.3 |
| Belair 100's 100FMSP..... | 8.8±0.2 | 0.67±0.02 | 9.1±0.2 |
| Kent Golden Lights KFHP..... | 8.8±0.3 | 0.78±0.02 | 9.7±0.4 |
| Camel Lights KFSP..... | 8.8±0.2 | 0.65±0.01 | 11.3±0.3 |
| Virginia Slims Lights 100FHP..... | 8.8±0.2 | 0.70±0.02 | 9.3±0.3 |
| Capri 100FMHP..... | 8.9±0.2 | 0.73±0.02 | 6.0±0.2 |
| Lucky Strike Lights 100's 100FSP..... | 8.9±0.2 | 0.74±0.01 | 10.0±0.3 |
| Falcon Lights 100's 100FMSP..... | 8.9±0.2 | 0.73±0.02 | 11.0±0.3 |
| More Lights 100s 100FMHP..... | 9.0±0.3 | 0.69±0.03 | 10.2±0.3 |
| Newport Lights 100's 100FMSP..... | 9.0±0.3 | 0.83±0.02 | 9.5±0.4 |
| Malibu Lights 100's 100FSP..... | 9.1±0.2 | 0.75±0.02 | 10.6±0.4 |
| Magna Lites KFSP..... | 9.1±0.2 | 0.64±0.01 | 13.7±0.2 |
| Parliament Lights KFSP..... | 9.1±0.2 | 0.71±0.02 | 10.4±0.2 |
| Capri 100FHP..... | 9.2±0.2 | 0.78±0.02 | 6.4±0.2 |
| Newport Lights 100's 100FMHP..... | 9.2±0.3 | 0.84±0.02 | 9.9±0.3 |
| Salem Lights 100's 100FMSP..... | 9.3±0.3 | 0.74±0.02 | 11.1±0.4 |
| Newport Stripes Slim Lights 100FMHP..... | 9.3±0.2 | 0.76±0.02 | 11.4±0.2 |
| Kent Golden Lights 100s 100FMSP..... | 9.3±0.2 | 0.85±0.02 | 10.0±0.3 |
| Old Gold Lights KFSP..... | 9.3±0.2 | 0.81±0.02 | 10.9±0.3 |
| Parliament Lights KFHP..... | 9.5±0.2 | 0.72±0.02 | 10.3±0.4 |
| Salem Slim Lights 100's 100FMHP..... | 9.5±0.2 | 0.77±0.02 | 10.2±0.3 |
| Kent Golden Lights 100s 100FSP..... | 9.6±0.3 | 0.86±0.02 | 10.5±0.4 |
| Century 25's Lights (25) KFSP..... | 9.7±0.2 | 0.70±0.02 | 11.8±0.3 |
| Winston Lights KFHP..... | 9.7±0.2 | 0.63±0.01 | 11.7±0.3 |
| Salem Lights KFMSP..... | 9.8±0.2 | 0.72±0.02 | 12.6±0.2 |
| Camel Lights KFHP..... | 9.9±0.2 | 0.64±0.01 | 11.8±0.3 |
| Winston Lights 100's 100FHP..... | 9.9±0.2 | 0.72±0.02 | 11.8±0.3 |
| Marlboro Lights KFMSP..... | 9.9±0.2 | 0.77±0.01 | 10.4±0.3 |
| More Lights 100s 100FHP..... | 10.0±0.2 | 0.78±0.02 | 10.7±0.3 |
| Players Lights 25's KFMSP..... | 10.0±0.2 | 0.71±0.01 | 11.1±0.4 |
| Vantage KFMSP..... | 10.0±0.2 | 0.69±0.01 | 12.5±0.3 |
| Players Lights 25's KFSP..... | 10.0±0.2 | 0.72±0.02 | 11.1±0.2 |
| Merit 100's 100FSP..... | 10.0±0.2 | 0.80±0.02 | 11.8±0.3 |
| Merit 100's 100FMSP..... | 10.1±0.2 | 0.78±0.02 | 12.0±0.3 |
| Marlboro Lights 100's 100FHMP..... | 10.2±0.2 | 0.81±0.02 | 11.2±0.4 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---|-------------------------|------------------------------|----------------------|
| Marlboro Lights KFMHP | 10.2±0.2 | 0.78±0.02 | 11.2±0.3 |
| Falcon Lights KFMSP | 10.2±0.3 | 0.78±0.02 | 11.9±0.4 |
| Kent Golden Lights 100s 100FHP | 10.2±0.2 | 0.91±0.02 | 11.2±0.4 |
| Malibu Lights KFSP | 10.2±0.2 | 0.79±0.01 | 10.8±0.3 |
| Pall Mall Red Lights KFSP | 10.3±0.3 | 0.81±0.02 | 10.7±0.3 |
| Pall Mall Lights 100's 100FSP | 10.3±0.2 | 0.84±0.02 | 12.0±0.3 |
| Ritz 100 100FHP | 10.4±0.3 | 0.78±0.02 | 11.5±0.4 |
| Dunhill Menthol Mild 100FMHP | 10.4±0.2 | 0.96±0.02 | 12.5±0.2 |
| Vantage KFSP | 10.5±0.2 | 0.75±0.02 | 13.5±0.3 |
| Benson & Hedges Lights 100's 100FMSP | 10.7±0.2 | 0.81±0.02 | 12.0±0.2 |
| Belair KFMSP | 10.7±0.2 | 0.84±0.01 | 9.8±0.2 |
| Winston Lights KFSP | 10.7±0.2 | 0.75±0.01 | 13.2±0.3 |
| Benson & Hedges Lights 100's 100FSP | 10.7±0.2 | 0.83±0.02 | 13.0±0.3 |
| Marlboro Lights 100's 100FHP | 10.8±0.2 | 0.85±0.02 | 12.3±0.3 |
| Marlboro Lights 100's 100FMSP | 10.9±0.1 | 0.86±0.01 | 12.0±0.3 |
| Marlboro Lights 100's 100FSP | 11.0±0.2 | 0.85±0.02 | 13.0±0.4 |
| Marlboro Lights KFHP | 11.0±0.2 | 0.82±0.02 | 12.4±0.3 |
| Silva Thins Menthol 100FMHP | 11.1±0.2 | 0.90±0.01 | 11.7±0.3 |
| Ritz 100 100FMHP | 11.1±0.3 | 0.81±0.02 | 11.5±0.3 |
| Pall Mall Red Lights 100's 100FSP | 11.1±0.2 | 0.88±0.02 | 12.2±0.4 |
| Falcon Lights KFSP | 11.2±0.2 | 0.77±0.02 | 11.2±0.3 |
| Marlboro Lights 25's KFSP | 11.2±0.2 | 0.80±0.02 | 12.4±0.3 |
| Benson & Hedges Multifilter KFSP | 11.2±0.3 | 0.85±0.02 | 10.8±0.2 |
| Marlboro Lights KFSP | 11.2±0.2 | 0.83±0.02 | 12.2±0.3 |
| Salem Lights 100's 100FMHP | 11.3±0.2 | 0.86±0.02 | 11.6±0.2 |
| Doral Lights 100's 100FSP | 11.3±0.3 | 0.70±0.02 | 12.9±0.3 |
| Kent KFHP | 11.3±0.2 | 0.86±0.02 | 12.9±0.3 |
| Viceroy Lights KFSP | 11.3±0.3 | 0.88±0.02 | 13.1±0.3 |
| Satin 100FMSP | 11.4±0.3 | 0.97±0.02 | 13.3±0.4 |
| Winston Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 13.4±0.3 |
| Satin 100FSP | 11.4±0.3 | 0.97±0.02 | 13.1±0.4 |
| Raleigh Lights KFSP | 11.4±0.2 | 0.87±0.02 | 13.1±0.3 |
| Camel Lights 100's 100FSP | 11.4±0.2 | 0.81±0.01 | 15.0±0.3 |
| Players 25's Lights 100's 100FMSP | 11.4±0.2 | 0.81±0.01 | 13.7±0.3 |
| Century 25's Menthol Lights 100's 100FMSP | 11.5±0.2 | 0.84±0.01 | 13.2±0.3 |
| Richland Lights (25) KFSP | 11.5±0.2 | 0.89±0.02 | 12.7±0.3 |
| Kool Milds KFMHP | 11.6±0.3 | 0.88±0.02 | 11.3±0.3 |
| Malibu Menthol 100's 100FMSP | 11.6±0.2 | 0.94±0.02 | 12.5±0.3 |
| Silva Thins 100FSP | 11.7±0.2 | 0.98±0.02 | 10.0±0.2 |
| Players KFHP | 11.7±0.2 | 0.83±0.02 | 12.2±0.2 |
| Doral Menthol Lights KFMSP | 11.7±0.2 | 0.64±0.01 | 14.0±0.2 |
| Richland 20's Lights KFSP | 11.7±0.3 | 0.90±0.02 | 13.5±0.3 |
| Lucky Strike Menthol 100's 100FMSP | 11.8±0.1 | 0.96±0.02 | 12.3±0.2 |
| Lucky Strike KFSP | 11.8±0.3 | 0.89±0.02 | 12.6±0.3 |
| Cambridge Lights 100's 100FMSP | 11.9±0.2 | 0.86±0.01 | 14.6±0.4 |
| Players KFMHP | 11.9±0.2 | 0.82±0.01 | 12.3±0.2 |
| Cambridge Lights KFMSP | 11.9±0.2 | 0.84±0.02 | 12.1±0.3 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|---------------------------------------|-----------------|----------------------|--------------|
| Lucky Strike Filters 100's 100FSP | 11.9±0.2 | 0.96±0.02 | 12.7±0.2 |
| Century 25's Lights 100's 100FSP | 11.9±0.3 | 0.89±0.02 | 13.4±0.3 |
| Viceroy Lights 100's 100FSP | 11.9±0.2 | 0.92±0.02 | 14.1±0.3 |
| Players 25's Lights 100's 100FSP | 11.9±0.3 | 0.86±0.02 | 14.1±0.4 |
| American Lights KFSP | 11.9±0.2 | 0.91±0.02 | 12.9±0.3 |
| Cambridge Lights 100's 100FSP | 12.0±0.2 | 0.87±0.02 | 14.5±0.4 |
| Parliament Lights 100's 100FSP | 12.0±0.2 | 0.95±0.02 | 12.7±0.2 |
| Kent KFSP | 12.0±0.2 | 0.88±0.02 | 13.9±0.3 |
| Kool Milds 100's 100FMSP | 12.0±0.3 | 0.95±0.02 | 12.6±0.4 |
| Doral Lights KFSP | 12.1±0.3 | 0.67±0.02 | 14.5±0.4 |
| Falcon Lights 100's 100FSP | 12.1±0.2 | 0.85±0.02 | 14.8±0.4 |
| Doral Menthol Lights 100's 100FMSP | 12.1±0.2 | 0.90±0.02 | 14.2±0.4 |
| Richland 20's Lights 100's 100FSP | 12.1±0.3 | 0.73±0.01 | 13.7±0.3 |
| Lucky Strike KFHP | 12.1±0.2 | 0.92±0.02 | 12.8±0.4 |
| Raleigh Lights 100's 100FSP | 12.2±0.3 | 0.94±0.02 | 14.3±0.3 |
| Newport Stripes 100FMHP | 12.2±0.2 | 0.91±0.02 | 16.5±0.2 |
| Silva Thins Filters 100FHP | 12.2±0.2 | 0.97±0.02 | 12.5±0.3 |
| More Lights 120s 120FMSP | 12.2±0.4 | 0.99±0.03 | 19.6±0.5 |
| Cambridge Lights KFSP | 12.3±0.2 | 0.85±0.01 | 12.7±0.3 |
| Silva Thins Menthol 100FMSP | 12.3±0.3 | 1.05±0.02 | 10.5±0.3 |
| Kool Milds KFMSF | 12.3±0.3 | 0.93±0.02 | 13.1±0.3 |
| Newport Stripes 100FHP | 12.3±0.3 | 0.94±0.02 | 16.6±0.4 |
| Old Gold Lights 100s 100FSP | 12.3±0.2 | 0.91±0.02 | 17.0±0.3 |
| Richland Lights (25) 100's 100FSP | 12.4±0.2 | 0.94±0.02 | 14.0±0.2 |
| L & M 30's Lights 100's 100FSP | 12.6±0.3 | 1.06±0.02 | 10.7±0.3 |
| Eve Slim Lights 100's 100FMHP | 12.6±0.3 | 1.00±0.02 | 10.8±0.3 |
| Eve Slim Lights 100's 100FHP | 12.8±0.2 | 1.03±0.02 | 11.0±0.2 |
| More Lights 120s 120FSP | 12.9±0.2 | 0.98±0.01 | 20.2±0.5 |
| Eve Lights 120's 120FHP | 13.0±0.4 | 1.12±0.03 | 11.6±0.5 |
| Pall Mall Light 100's Low Tar 100FMSP | 13.3±0.2 | 1.08±0.02 | 13.1±0.3 |
| American Lights 100's 100FSP | 13.3±0.2 | 1.08±0.01 | 13.9±0.2 |
| Lark Lights KFSP | 13.4±0.3 | 1.03±0.02 | 13.3±0.3 |
| Eve Lights 120's 120FMHP | 13.5±0.2 | 1.17±0.02 | 12.0±0.3 |
| Kent 100s 100FSP | 13.6±0.3 | 1.02±0.02 | 14.7±0.4 |
| Pall Mall Red Filters KFSP | 13.6±0.3 | 1.02±0.02 | 12.6±0.3 |
| Rothmans Special Mild KFHP | 13.6±0.2 | 1.03±0.02 | 15.5±0.4 |
| L & M KFSP | 13.7±0.2 | 1.08±0.02 | 12.9±0.3 |
| Pall Mall Red Filters 100's 100FSP | 13.8±0.3 | 1.07±0.02 | 14.0±0.2 |
| Players 100's 100FHP | 13.9±0.2 | 0.98±0.02 | 12.9±0.3 |
| Lark Light 100's 100FSP | 13.9±0.3 | 1.15±0.03 | 14.5±0.5 |
| L & M Super 100 100FSP | 13.9±0.2 | 1.12±0.02 | 14.2±0.3 |
| Magna KFSP | 13.9±0.2 | 0.91±0.02 | 14.9±0.2 |
| Malibu 100's 100FSP | 13.9±0.3 | 1.10±0.02 | 13.4±0.3 |
| Kent 100s 100FMSP | 14.0±0.2 | 1.04±0.01 | 14.4±0.3 |
| Players 100's 100FMHP | 14.0±0.2 | 0.98±0.02 | 12.7±0.3 |
| Magna KFHP | 14.1±0.3 | 0.90±0.01 | 16.3±0.4 |
| Harley Davidson KFSP | 14.1±0.3 | 0.98±0.02 | 16.3±0.4 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| Tareyton 100's 100FSP | 14.1±0.2 | 1.02±0.02 | 16.8±0.4 |
| Dunhill Menthol 100FMHP | 14.2±0.3 | 1.19±0.02 | 17.0±0.4 |
| Lark KFSP | 14.3±0.3 | 1.11±0.03 | 13.3±0.3 |
| Tareyton KFSP | 14.3±0.3 | 0.98±0.02 | 15.9±0.3 |
| Saratoga 120's 120FHP | 14.5±0.2 | 1.07±0.02 | 14.8±0.3 |
| Saratoga 120's 120FMHP | 14.7±0.2 | 1.07±0.02 | 14.8±0.4 |
| Lark 100FSP | 14.7±0.3 | 1.22±0.02 | 14.0±0.2 |
| Doral Full Flavor 100's 100FSP | 14.7±0.2 | 0.84±0.01 | 17.2±0.3 |
| *Virginia Slims Lights 120's 120FHP | 14.7±0.3 | 1.09±0.02 | 15.2±0.3 |
| St. Moritz Filter 100s 100FSP | 14.8±0.2 | 1.08±0.02 | 15.5±0.2 |
| *Virginia Slims Lights 120's 120FMHP | 14.9±0.2 | 1.08±0.01 | 14.9±0.2 |
| St. Moritz Menthol 100FMSP | 14.9±0.3 | 0.96±0.01 | 17.1±0.4 |
| Virginia Slims 100FMSP | 15.1±0.3 | 1.06±0.03 | 13.9±0.3 |
| Dunhill International 100FHP | 15.2±0.3 | 1.39±0.03 | 17.6±0.3 |
| Virginia Slims 100FSP | 15.3±0.2 | 1.07±0.02 | 13.8±0.3 |
| Century 25's (25) KFSP | 15.3±0.3 | 0.99±0.02 | 17.8±0.3 |
| Viceroy KFSP | 15.3±0.3 | 0.97±0.02 | 14.5±0.3 |
| Benson & Hedges KFHP | 15.4±0.2 | 1.26±0.02 | 12.6±0.3 |
| Raleigh KFSP | 15.5±0.4 | 0.97±0.03 | 14.7±0.3 |
| Raleigh 100's 100FSP | 15.5±0.3 | 0.99±0.02 | 16.0±0.3 |
| Camel Filters KFSP | 15.6±0.3 | 1.01±0.02 | 15.4±0.2 |
| Newport KFMHP | 15.7±0.2 | 1.17±0.02 | 16.5±0.3 |
| Craven "A" KFHP | 15.8±0.4 | 1.15±0.02 | 16.3±0.4 |
| Viceroy Super Long 100's 100FSP | 15.9±0.3 | 1.14±0.02 | 15.1±0.3 |
| Salem KFMSP | 15.9±0.3 | 1.04±0.02 | 16.7±0.3 |
| Richland 100's (25) 100FMSP | 16.0±0.3 | 1.16±0.02 | 16.3±0.4 |
| Kool KFMHP | 16.2±0.4 | 1.12±0.03 | 16.4±0.4 |
| Richland (25) KFMSP | 16.2±0.3 | 1.09±0.02 | 15.6±0.3 |
| Richland 20's KFSP | 16.3±0.3 | 1.13±0.02 | 16.0±0.3 |
| Richland 20's KFMSP | 16.4±0.4 | 1.05±0.02 | 16.1±0.3 |
| Malibu Filters KFSP | 16.4±0.3 | 1.18±0.03 | 13.6±0.3 |
| Marlboro 100's Red 100FHP | 16.4±0.3 | 1.19±0.02 | 16.3±0.4 |
| More 120s 120FSP | 16.5±0.4 | 1.19±0.02 | 21.5±0.4 |
| Marlboro 100's Red 100FSP | 16.5±0.2 | 1.19±0.02 | 17.0±0.2 |
| Richland 20's 100's 100FSP | 16.6±0.3 | 1.23±0.02 | 17.3±0.4 |
| More 120s 120FMSP | 16.6±0.3 | 1.28±0.03 | 22.0±0.5 |
| Richland (25) KFSP | 16.6±0.3 | 1.18±0.02 | 15.8±0.2 |
| Kool Super Longs 100's 100FMSP | 16.6±0.3 | 1.25±0.02 | 17.0±0.3 |
| Richland 20's Menthol 100's 100FMSP | 16.6±0.3 | 1.15±0.02 | 17.1±0.3 |
| Philip Morris International 100FHP | 16.6±0.3 | 1.15±0.02 | 15.6±0.4 |
| Winston KFHP | 16.6±0.2 | 1.06±0.02 | 16.9±0.3 |
| Kool KFMSP | 16.7±0.3 | 1.14±0.02 | 16.8±0.3 |
| Camel Filters KFHP | 16.7±0.3 | 1.06±0.02 | 16.6±0.3 |
| Salem 100's 100FMSP | 16.8±0.2 | 1.19±0.02 | 16.1±0.3 |
| Old Gold Filters KFSP | 16.8±0.4 | 1.24±0.02 | 18.1±0.3 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|--|-----------------|----------------------|--------------|
| Philip Morris International 100FMHP..... | 16.8±0.3 | 1.08±0.02 | 16.2±0.4 |
| Winston 100's 100FSP | 16.8±0.3 | 1.06±0.02 | 18.6±0.3 |
| Marlboro KFHP..... | 16.8±0.2 | 1.14±0.02 | 15.2±0.3 |
| Marlboro 100's 100FHP | 16.8±0.3 | 1.22±0.03 | 16.9±0.6 |
| Pall Mall 100's 100FSP | 16.8±0.2 | 1.28±0.02 | 17.1±0.3 |
| Richland 100's (25) 100FSP | 16.9±0.2 | 1.28±0.02 | 17.3±0.4 |
| Marlboro 100's 100FSP | 16.9±0.3 | 1.22±0.02 | 16.5±0.4 |
| Winston KFSP | 16.9±0.2 | 1.13±0.02 | 16.3±0.2 |
| Cambridge Full Flavor KFSP | 17.0±0.2 | 1.09±0.01 | 16.1±0.3 |
| *Benson & Hedges 100's 100FMSP | 17.0±0.4 | 1.20±0.02 | 16.4±0.3 |
| *Alpine KFMSP | 17.0±0.3 | 1.14±0.02 | 16.5±0.2 |
| *Marlboro KFMSP | 17.0±0.3 | 1.18±0.01 | 15.3±0.2 |
| Max 120s 120FSP | 17.1±0.3 | 1.34±0.03 | 17.7±0.4 |
| Newport KFMSP | 17.1±0.3 | 1.26±0.02 | 18.3±0.5 |
| Malibu Menthol KFMSP | 17.1±0.3 | 1.24±0.02 | 14.8±0.2 |
| Newport 25's KFMSP | 17.1±0.4 | 1.28±0.02 | 18.2±0.4 |
| Marlboro 25's KFSP | 17.2±0.4 | 1.13±0.02 | 15.9±0.3 |
| Max 120s 120FMSP | 17.2±0.2 | 1.38±0.03 | 17.0±0.5 |
| Cambridge Full Flavor 100's 100FSP | 17.2±0.2 | 1.17±0.02 | 16.0±0.3 |
| *Benson & Hedges 100's 100FHP | 17.2±0.3 | 1.20±0.03 | 17.0±0.4 |
| *Benson & Hedges 100's 100FSP | 17.2±0.4 | 1.22±0.02 | 16.4±0.4 |
| *Benson & Hedges 100's 100FMHP | 17.2±0.3 | 1.22±0.01 | 17.2±0.3 |
| Marlboro KFSP | 17.4±0.2 | 1.17±0.02 | 16.9±0.4 |
| Doral Full Flavor KFSP | 17.4±0.2 | 0.92±0.01 | 19.6±0.4 |
| Century 25's 100's 100FSP | 17.5±0.3 | 1.13±0.02 | 20.9±0.5 |
| Camel Filters 100's 100FSP | 17.5±0.2 | 1.06±0.01 | 18.7±0.3 |
| Tall 120s 120FMSP | 18.0±0.3 | 1.57±0.03 | 16.5±0.5 |
| Craven "A" Filter Standard Size RFHP | 18.6±0.4 | 1.51±0.03 | 13.6±0.3 |
| Newport 100's 100FMHP | 19.2±0.2 | 1.46±0.02 | 19.4±0.4 |
| Spring 100's 100FMSP | 19.3±0.2 | 1.49±0.03 | 19.0±0.2 |
| Newport 100's 100FMSP | 19.3±0.3 | 1.47±0.03 | 19.4±0.4 |
| Rothmans KFHP | 19.4±0.4 | 1.34±0.02 | 22.5±0.7 |
| Newport 25's 100FMSP | 19.5±0.3 | 1.48±0.02 | 19.8±0.3 |
| Old Gold Filter 100's 100FSP | 19.7±0.3 | 1.50±0.03 | 19.6±0.4 |
| Chesterfield RNFSP | 20.0±0.5 | 1.30±0.03 | 13.3±0.4 |
| Tall 120s 120FSP | 20.4±0.3 | 1.64±0.03 | 20.2±0.4 |
| Kool RNFMSF | 21.5±0.8 | 1.36±0.03 | 14.5±0.2 |
| Camel RNFSP | 22.0±0.3 | 1.39±0.02 | 14.2±0.4 |
| English Ovals KNFHP | 23.8±0.6 | 1.87±0.04 | 15.6±0.5 |
| Raleigh KNFSP | 23.8±0.5 | 1.40±0.03 | 16.6±0.4 |
| Chesterfield KNFSP | 24.2±0.5 | 1.65±0.04 | 15.3±0.5 |
| Lucky Strike RNFSP | 24.4±0.5 | 1.52±0.02 | 16.5±0.3 |
| Pall Mall 25's KNFSP | 24.7±0.3 | 1.64±0.03 | 16.5±0.3 |
| Pall Mall KNFSP | 24.9±0.3 | 1.64±0.02 | 16.6±0.4 |
| Herbert Tareyton KNFSP | 25.1±0.9 | 1.58±0.03 | 17.8±0.4 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Tar" Results**

| Brand | "Tar" mg/cig | "Nicotine" mg/cig | CO mg/cig |
|-------------------------------------|-------------------------|------------------------------|----------------------|
| Players RNFHP..... | 25.2±0.4 | 1.74±0.03 | 15.9±0.4 |
| Philip Morris Commander KNFSP | 26.3±0.5 | 1.61±0.03 | 16.2±0.5 |
| Old Gold Straights KNFSP..... | 26.9±0.6 | 1.89±0.05 | 18.7±0.5 |

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results**

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|---|----------------------|-----------------|--------------|
| Carlton KFHP | <0.05 | <0.5 | <0.5 |
| Now KFHP | <0.05 | <0.5 | <0.5 |
| Now 100s 100FHP | <0.05 | <0.5 | <0.5 |
| Carlton KFMSF | 0.09±0.01 | 0.6±0.1 | 1.4±0.1 |
| Carlton 100's 100FMHP | 0.10±0.01 | 0.6±0.1 | 1.0±0.1 |
| Carlton 100's 100FHP | 0.10±0.01 | 0.7±0.1 | 1.1±0.1 |
| Now KFMSF | 0.13±0.01 | 1.1±0.1 | 2.3±0.1 |
| Now KFSP | 0.14±0.01 | 1.0±0.1 | 2.3±0.1 |
| Carlton KFSP | 0.15±0.01 | 1.3±0.1 | 2.4±0.1 |
| Now 100s 100FSP | 0.21±0.01 | 1.9±0.1 | 3.1±0.2 |
| Kool Ultra KFMSF | 0.21±0.02 | 2.2±0.2 | 2.7±0.2 |
| Now 100s 100FMSP | 0.26±0.01 | 2.5±0.1 | 4.3±0.2 |
| Triumph KFSP | 0.32±0.02 | 3.1±0.1 | 3.8±0.2 |
| Triumph KFMSF | 0.34±0.02 | 3.5±0.2 | 4.3±0.2 |
| Carlton 100's 100FSP | 0.35±0.01 | 3.4±0.1 | 4.6±0.2 |
| Kent III KFSP | 0.35±0.02 | 3.4±0.2 | 4.3±0.2 |
| Cambridge Ultra Low Tar 100's 100FSP | 0.41±0.01 | 4.7±0.2 | 6.6±0.3 |
| Merit Ultra Lights KFMSF | 0.42±0.01 | 4.5±0.1 | 5.9±0.2 |
| Carlton 100's 100FMSP | 0.42±0.01 | 4.5±0.1 | 6.4±0.2 |
| Salem Ultra Lights KFMSF | 0.43±0.01 | 4.9±0.1 | 7.7±0.2 |
| Merit Ultra Lights KFSP | 0.43±0.01 | 4.4±0.2 | 5.5±0.2 |
| Tareyton Lights KFSP | 0.44±0.01 | 5.2±0.2 | 6.0±0.2 |
| Bright 100s 100FMSP | 0.44±0.01 | 6.0±0.1 | 10.3±0.3 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FHP | 0.44±0.02 | 5.0±0.2 | 6.2±0.3 |
| Kent III 100s 100FSP | 0.45±0.01 | 4.7±0.2 | 6.6±0.3 |
| Kool Ultra 100's 100FMSP | 0.45±0.02 | 5.0±0.3 | 5.2±0.3 |
| Salem Ultra Lights 100's 100FMSP | 0.45±0.01 | 5.1±0.1 | 8.0±0.2 |
| Winston Ultra Lights KFSP | 0.46±0.01 | 5.5±0.2 | 8.5±0.2 |
| True KFMSF | 0.46±0.02 | 4.9±0.3 | 6.1±0.4 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FMHP | 0.47±0.01 | 5.2±0.1 | 6.2±0.2 |
| Winston Ultra Lights 100's 100FSP | 0.47±0.02 | 5.3±0.2 | 9.0±0.3 |
| Vantage Ultra Lights KFSP | 0.47±0.01 | 5.5±0.1 | 8.0±0.2 |
| True KFSP | 0.48±0.02 | 5.1±0.2 | 6.4±0.3 |
| Doral Ultra Lights 100's 100FSP | 0.48±0.02 | 6.7±0.3 | 11.7±0.5 |
| Triumph 100s 100FSP | 0.50±0.02 | 5.3±0.3 | 7.4±0.4 |
| Vantage Ultra Lights 100s 100FSP | 0.50±0.01 | 5.8±0.1 | 9.5±0.2 |
| Kent III 100s 100FHP | 0.50±0.03 | 5.0±0.2 | 6.8±0.3 |
| Merit Ultra Lights 100's 100FSP | 0.50±0.01 | 5.3±0.1 | 7.4±0.2 |
| Triumph 100s 100FMSP | 0.52±0.01 | 5.4±0.2 | 7.5±0.2 |
| Merit Ultra Lights 100's 100FMSP | 0.53±0.02 | 6.0±0.2 | 8.2±0.3 |
| Merit KFMSF | 0.58±0.01 | 7.7±0.2 | 10.0±0.3 |
| Merit KFSP | 0.59±0.01 | 7.6±0.2 | 9.8±0.3 |
| Merit KFHP | 0.60±0.01 | 7.8±0.2 | 9.8±0.2 |
| Vantage Menthol 100s 100FMSP | 0.61±0.01 | 8.3±0.2 | 12.7±0.3 |
| True 100's 100FMSP | 0.61±0.03 | 6.7±0.4 | 7.3±0.5 |
| True 100's 100FSP | 0.61±0.02 | 6.7±0.3 | 7.4±0.4 |
| Carlton 120's 120FMSP | 0.62±0.03 | 6.2±0.2 | 5.5±0.2 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|---|----------------------|-----------------|--------------|
| Carlton 120's 120FSP..... | 0.62±0.02 | 6.5±0.2 | 5.6±0.2 |
| Vantage 100s 100FSP..... | 0.63±0.02 | 8.8±0.2 | 12.5±0.3 |
| Winston Lights KFHP..... | 0.63±0.01 | 9.7±0.2 | 11.7±0.3 |
| Doral Menthol Lights KFMSP..... | 0.64±0.01 | 11.7±0.2 | 14.0±0.2 |
| Magna Lites KFSP..... | 0.64±0.01 | 9.1±0.2 | 13.7±0.2 |
| Camel Lights KFHP..... | 0.64±0.01 | 9.9±0.2 | 11.8±0.3 |
| Camel Lights KFSP..... | 0.65±0.01 | 8.8±0.2 | 11.3±0.3 |
| Belair 100's 100FMSP..... | 0.67±0.02 | 8.8±0.2 | 9.1±0.2 |
| Doral Lights KFSP..... | 0.67±0.02 | 12.1±0.3 | 14.5±0.4 |
| Tareyton Long Lights 100FSP..... | 0.68±0.01 | 8.1±0.2 | 8.8±0.3 |
| Lucky Strike Lights KFSP..... | 0.68±0.02 | 8.4±0.3 | 10.2±0.3 |
| Virginia Slims Lights 100FMHP..... | 0.69±0.02 | 8.5±0.2 | 9.2±0.2 |
| Kool Lights KFMSP..... | 0.69±0.02 | 8.2±0.2 | 9.0±0.2 |
| Vantage KFMSP..... | 0.69±0.01 | 10.0±0.2 | 12.5±0.3 |
| More Lights 100s 100FMHP..... | 0.69±0.03 | 9.0±0.3 | 10.2±0.3 |
| Century 25's Lights (25) KFSP..... | 0.70±0.02 | 9.7±0.2 | 11.8±0.3 |
| Virginia Slims Lights 100FHP..... | 0.70±0.02 | 8.8±0.2 | 9.3±0.3 |
| Doral Lights 100's 100FSP..... | 0.70±0.02 | 11.3±0.3 | 12.9±0.3 |
| Parliament Lights KFSP..... | 0.71±0.02 | 9.1±0.2 | 10.4±0.2 |
| Players Lights 25's KFMSP..... | 0.71±0.01 | 10.0±0.2 | 11.1±0.4 |
| Parliament Lights KFHP..... | 0.72±0.02 | 9.5±0.2 | 10.3±0.4 |
| Players Lights 25's KFSP..... | 0.72±0.02 | 10.0±0.2 | 11.1±0.2 |
| Salem Lights KFMSP..... | 0.72±0.02 | 9.8±0.2 | 12.6±0.2 |
| Winston Lights 100's 100FHP..... | 0.72±0.02 | 9.9±0.2 | 11.8±0.3 |
| Falcon Lights 100's 100FMSP..... | 0.73±0.02 | 8.9±0.2 | 11.0±0.3 |
| Capri 100FMHP..... | 0.73±0.02 | 8.9±0.2 | 6.0±0.2 |
| Kool Lights 100's 100FMSP..... | 0.73±0.01 | 8.5±0.2 | 10.0±0.3 |
| Doral Menthol Lights 100's 100FMSP..... | 0.73±0.01 | 12.1±0.3 | 13.7±0.3 |
| Dunhill International Superior Mild 100FHP..... | 0.73±0.01 | 8.4±0.2 | 10.5±0.2 |
| Newport Lights KFMHP..... | 0.73±0.02 | 8.6±0.2 | 9.5±0.3 |
| Salem Lights 100's 100FMSP..... | 0.74±0.02 | 9.3±0.3 | 11.1±0.4 |
| Lucky Strike Lights 100's 100FSP..... | 0.74±0.01 | 8.9±0.2 | 10.0±0.3 |
| Kent Golden Lights KFSP..... | 0.74±0.02 | 8.5±0.2 | 9.6±0.3 |
| Newport Lights KFMSP..... | 0.75±0.02 | 8.3±0.3 | 9.1±0.3 |
| Winston Lights KFSP..... | 0.75±0.01 | 10.7±0.2 | 13.2±0.3 |
| Kent Golden Lights KFMSP..... | 0.75±0.02 | 8.3±0.3 | 9.1±0.4 |
| Vantage KFSP..... | 0.75±0.02 | 10.5±0.2 | 13.5±0.3 |
| Malibu Lights 100's 100FSP..... | 0.75±0.02 | 9.1±0.2 | 10.6±0.4 |
| Newport Stripes Slim Lights 100FMHP..... | 0.76±0.02 | 9.3±0.2 | 11.4±0.2 |
| Salem Slim Lights 100's 100FMHP..... | 0.77±0.02 | 9.5±0.2 | 10.2±0.3 |
| Marlboro Lights KFMSP..... | 0.77±0.01 | 9.9±0.2 | 10.4±0.3 |
| Falcon Lights KFSP..... | 0.77±0.02 | 11.2±0.2 | 11.2±0.3 |
| Merit 100's 100FMSP..... | 0.78±0.02 | 10.1±0.2 | 12.0±0.3 |
| Ritz 100 100FHP..... | 0.78±0.02 | 10.4±0.3 | 11.5±0.4 |
| Falcon Lights KFMSP..... | 0.78±0.02 | 10.2±0.3 | 11.9±0.4 |
| Capri 100FHP..... | 0.78±0.02 | 9.2±0.2 | 6.4±0.2 |
| Marlboro Lights KFMHP..... | 0.78±0.02 | 10.2±0.2 | 11.2±0.3 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|---|----------------------|-----------------|--------------|
| More Lights 100s 100FHP | 0.78±0.02 | 10.0±0.2 | 10.7±0.3 |
| Kent Golden Lights KFHP | 0.78±0.02 | 8.8±0.3 | 9.7±0.4 |
| Malibu Lights KFSP | 0.79±0.01 | 10.2±0.2 | 10.8±0.3 |
| Marlboro Lights 25's KFSP | 0.80±0.02 | 11.2±0.2 | 12.4±0.3 |
| Merit 100's 100FSP | 0.80±0.02 | 10.0±0.2 | 11.8±0.3 |
| L & M Long Lights 100FSP | 0.80±0.02 | 7.8±0.2 | 6.3±0.2 |
| Camel Lights 100's 100FSP | 0.81±0.01 | 11.4±0.2 | 15.0±0.3 |
| Old Gold Lights KFSP | 0.81±0.02 | 9.3±0.2 | 10.9±0.3 |
| Winston Lights 100's 100FSP | 0.81±0.01 | 11.4±0.2 | 13.4±0.3 |
| Benson & Hedges Lights 100's 100FMSP | 0.81±0.02 | 10.7±0.2 | 12.0±0.2 |
| Pall Mall Red Lights KFSP | 0.81±0.02 | 10.3±0.3 | 10.7±0.3 |
| Ritz 100 100FMHP | 0.81±0.02 | 11.1±0.3 | 11.5±0.3 |
| Marlboro Lights 100's 100FHMP | 0.81±0.02 | 10.2±0.2 | 11.2±0.4 |
| Players 25's Lights 100's 100FMSP | 0.81±0.01 | 11.4±0.2 | 13.7±0.3 |
| Players KFMHP | 0.82±0.01 | 11.9±0.2 | 12.3±0.2 |
| Marlboro Lights KFHP | 0.82±0.02 | 11.0±0.2 | 12.4±0.3 |
| Marlboro Lights KFSP | 0.83±0.02 | 11.2±0.2 | 12.2±0.3 |
| Benson & Hedges Lights 100's 100FSP | 0.83±0.02 | 10.7±0.2 | 13.0±0.3 |
| Newport Lights 100's 100FMSP | 0.83±0.02 | 9.0±0.3 | 9.5±0.4 |
| Players KFHP | 0.83±0.02 | 11.7±0.2 | 12.2±0.2 |
| Cambridge Lights KFMSP | 0.84±0.02 | 11.9±0.2 | 12.1±0.3 |
| Doral Full Flavor 100's 100FSP | 0.84±0.01 | 14.8±0.2 | 17.2±0.3 |
| Century 25's Menthol Lights 100's 100FMSP | 0.84±0.01 | 11.5±0.2 | 13.2±0.3 |
| Newport Lights 100's 100FMHP | 0.84±0.02 | 9.2±0.3 | 9.9±0.3 |
| Belair KFMSP | 0.84±0.01 | 10.7±0.2 | 9.8±0.2 |
| Pall Mall Lights 100's 100FSP | 0.84±0.02 | 10.3±0.2 | 12.0±0.3 |
| Cambridge Lights KFSP | 0.85±0.01 | 12.3±0.2 | 12.7±0.3 |
| Marlboro Lights 100's 100FHP | 0.85±0.02 | 10.8±0.2 | 12.3±0.3 |
| Marlboro Lights 100's 100FSP | 0.85±0.02 | 11.0±0.2 | 13.0±0.4 |
| Kent Golden Lights 100s 100FMSP | 0.85±0.02 | 9.3±0.2 | 10.0±0.3 |
| Benson & Hedges Multifilter KFSP | 0.85±0.02 | 11.2±0.3 | 10.8±0.2 |
| Falcon Lights 100's 100FSP | 0.85±0.02 | 12.1±0.2 | 14.8±0.4 |
| Marlboro Lights 100's 100FMSP | 0.86±0.01 | 10.9±0.1 | 12.0±0.3 |
| Kent KFHP | 0.86±0.02 | 11.3±0.2 | 12.9±0.3 |
| Cambridge Lights 100's 100FMSP | 0.86±0.01 | 11.9±0.2 | 14.6±0.4 |
| Salem Lights 100's 100FMHP | 0.86±0.02 | 11.3±0.2 | 11.6±0.2 |
| Players 25's Lights 100's 100FSP | 0.86±0.02 | 11.9±0.3 | 14.1±0.4 |
| Kent Golden Lights 100s 100FSP | 0.86±0.02 | 9.6±0.3 | 10.5±0.4 |
| Cambridge Lights 100's 100FSP | 0.87±0.02 | 12.0±0.2 | 14.5±0.4 |
| Raleigh Lights KFSP | 0.87±0.02 | 11.4±0.2 | 13.1±0.3 |
| Pall Mall Red Lights 100's 100FSP | 0.88±0.02 | 11.1±0.2 | 12.2±0.4 |
| Viceroy Lights KFSP | 0.88±0.02 | 11.3±0.3 | 13.1±0.3 |
| Kool Milds KFMHP | 0.88±0.02 | 11.6±0.3 | 11.3±0.3 |
| Kent KFSP | 0.88±0.02 | 12.0±0.2 | 13.9±0.3 |
| Century 25's Lights 100's 100FSP | 0.89±0.02 | 11.9±0.3 | 13.4±0.3 |
| Richland Lights (25) KFSP | 0.89±0.02 | 11.5±0.2 | 12.7±0.3 |
| Lucky Strike KFSP | 0.89±0.02 | 11.8±0.3 | 12.6±0.3 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|--|----------------------|-----------------|--------------|
| Richland 20's Lights 100's 100FSP..... | 0.90±0.02 | 12.1±0.2 | 14.2±0.4 |
| Magna KFHP | 0.90±0.01 | 14.1±0.3 | 16.3±0.4 |
| Richland 20's Lights KFSP | 0.90±0.02 | 11.7±0.3 | 13.5±0.3 |
| Silva Thins Menthol 100FMHP..... | 0.90±0.01 | 11.1±0.2 | 11.7±0.3 |
| Old Gold Lights 100s 100FSP..... | 0.91±0.02 | 12.3±0.2 | 17.0±0.3 |
| American Lights KFSP..... | 0.91±0.02 | 11.9±0.2 | 12.9±0.3 |
| Newport Stripes 100FMHP | 0.91±0.02 | 12.2±0.2 | 16.5±0.2 |
| Magna KFSP..... | 0.91±0.02 | 13.9±0.2 | 14.9±0.2 |
| Kent Golden Lights 100s 100FHP | 0.91±0.02 | 10.2±0.2 | 11.2±0.4 |
| Viceroy Lights 100's 100FSP..... | 0.92±0.02 | 11.9±0.2 | 14.1±0.3 |
| Doral Full Flavor KFSP | 0.92±0.01 | 17.4±0.2 | 19.6±0.4 |
| Lucky Strike KFHP..... | 0.92±0.02 | 12.1±0.2 | 12.8±0.4 |
| Kool Milds KFMSF | 0.93±0.02 | 12.3±0.3 | 13.1±0.3 |
| Raleigh Lights 100's 100FSP..... | 0.94±0.02 | 12.2±0.3 | 14.3±0.3 |
| Malibu Menthol 100's 100FMSP..... | 0.94±0.02 | 11.6±0.2 | 12.5±0.3 |
| Newport Stripes 100FHP | 0.94±0.02 | 12.3±0.3 | 16.6±0.4 |
| Richland Lights (25) 100's 100FSP | 0.94±0.02 | 12.4±0.2 | 14.0±0.2 |
| Parliament Lights 100's 100FSP | 0.95±0.02 | 12.0±0.2 | 12.7±0.2 |
| Kool Milds 100's 100FMSP..... | 0.95±0.02 | 12.0±0.3 | 12.6±0.4 |
| St. Moritz Menthol 100FMSP | 0.96±0.01 | 14.9±0.3 | 17.1±0.4 |
| Dunhill Menthol Mild 100FMHP | 0.96±0.02 | 10.4±0.2 | 12.5±0.2 |
| Lucky Strike Menthol 100's 100FMSP | 0.96±0.02 | 11.8±0.1 | 12.3±0.2 |
| Lucky Strike Filters 100's 100FSP..... | 0.96±0.02 | 11.9±0.2 | 12.7±0.2 |
| Raleigh KFSP | 0.97±0.03 | 15.5±0.4 | 14.7±0.3 |
| Viceroy KFSP | 0.97±0.02 | 15.3±0.3 | 14.5±0.3 |
| Satin 100FSP..... | 0.97±0.02 | 11.4±0.3 | 13.1±0.4 |
| Silva Thins Filters 100FHP | 0.97±0.02 | 12.2±0.2 | 12.5±0.3 |
| Satin 100FMSP..... | 0.97±0.02 | 11.4±0.3 | 13.3±0.4 |
| Silva Thins 100FSP..... | 0.98±0.02 | 11.7±0.2 | 10.0±0.2 |
| More Lights 120s 120FSP | 0.98±0.01 | 12.9±0.2 | 20.2±0.5 |
| Tareyton KFSP | 0.98±0.02 | 14.3±0.3 | 15.9±0.3 |
| Players 100's 100FMHP | 0.98±0.02 | 14.0±0.2 | 12.7±0.3 |
| Harley Davidson KFSP | 0.98±0.02 | 14.1±0.3 | 16.3±0.4 |
| Players 100's 100FHP | 0.98±0.02 | 13.9±0.2 | 12.9±0.3 |
| Century 25's (25) KFSP..... | 0.99±0.02 | 15.3±0.3 | 17.8±0.3 |
| More Lights 120s 120FMSP..... | 0.99±0.03 | 12.2±0.4 | 19.6±0.5 |
| Raleigh 100's 100FSP..... | 0.99±0.02 | 15.5±0.3 | 16.0±0.3 |
| Eve Slim Lights 100's 100FMHP | 1.00±0.02 | 12.6±0.3 | 10.8±0.3 |
| Camel Filters KFSP | 1.01±0.02 | 15.6±0.3 | 15.4±0.2 |
| Pall Mall Red Filters KFSP | 1.02±0.02 | 13.6±0.3 | 12.6±0.3 |
| Kent 100s 100FSP..... | 1.02±0.02 | 13.6±0.3 | 14.7±0.4 |
| Tareyton 100's 100FSP | 1.02±0.02 | 14.1±0.2 | 16.8±0.4 |
| Rothmans Special Mild KFHP..... | 1.03±0.02 | 13.6±0.2 | 15.5±0.4 |
| Eve Slim Lights 100's 100FHP | 1.03±0.02 | 12.8±0.2 | 11.0±0.2 |
| Lark Lights KFSP..... | 1.03±0.02 | 13.4±0.3 | 13.3±0.3 |
| Salem KFMSF | 1.04±0.02 | 15.9±0.3 | 16.7±0.3 |
| Kent 100s 100FMSP..... | 1.04±0.01 | 14.0±0.2 | 14.4±0.3 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|---|----------------------|-----------------|--------------|
| Richland 20's KFMSP | 1.05±0.02 | 16.4±0.4 | 16.1±0.3 |
| Silva Thins Menthol 100FMSP..... | 1.05±0.02 | 12.3±0.3 | 10.5±0.3 |
| Camel Filters 100's 100FSP | 1.06±0.01 | 17.5±0.2 | 18.7±0.3 |
| Winston 100's 100FSP | 1.06±0.02 | 16.9±0.2 | 18.6±0.3 |
| Virginia Slims 100FMSP | 1.06±0.03 | 15.1±0.3 | 13.9±0.3 |
| Camel Filters KFHP | 1.06±0.02 | 16.8±0.2 | 16.6±0.3 |
| Winston KFHP | 1.06±0.02 | 16.8±0.3 | 16.9±0.3 |
| L & M 30's Lights 100's 100FSP | 1.06±0.02 | 12.6±0.3 | 10.7±0.3 |
| Saratoga 120's 120FMHP | 1.07±0.02 | 14.7±0.3 | 14.8±0.4 |
| Saratoga 120's 120FHP | 1.07±0.02 | 14.7±0.2 | 14.8±0.3 |
| Virginia Slims 100FSP | 1.07±0.02 | 15.3±0.2 | 13.8±0.3 |
| Pall Mall Red Filters 100's 100FSP | 1.07±0.02 | 13.8±0.3 | 14.0±0.2 |
| American Lights 100's 100FSP | 1.08±0.01 | 13.3±0.2 | 13.9±0.2 |
| *Virginia Slims Lights 120's 120FMHP | 1.08±0.01 | 14.9±0.2 | 14.9±0.2 |
| L & M KFSP | 1.08±0.02 | 13.7±0.2 | 12.9±0.3 |
| St. Moritz Filter 100s 100FSP | 1.08±0.02 | 14.9±0.2 | 15.5±0.2 |
| Philip Morris International 100FMHP | 1.08±0.02 | 16.9±0.2 | 16.2±0.4 |
| Pall Mall Light 100's Low Tar 100FMSP | 1.08±0.02 | 13.3±0.2 | 13.1±0.3 |
| Richland (25) KFMSP | 1.09±0.02 | 16.2±0.3 | 15.6±0.3 |
| Cambridge Full Flavor KFSP | 1.09±0.01 | 17.1±0.3 | 16.1±0.3 |
| *Virginia Slims Lights 120's 120FHP | 1.09±0.02 | 14.8±0.2 | 15.2±0.3 |
| Malibu 100's 100FSP | 1.10±0.02 | 13.9±0.3 | 13.4±0.3 |
| Lark KFSP | 1.11±0.03 | 14.3±0.3 | 13.3±0.3 |
| L & M Super 100 100FSP | 1.12±0.02 | 13.9±0.2 | 14.2±0.3 |
| Kool KFMHP | 1.12±0.03 | 16.2±0.4 | 16.4±0.4 |
| Eve Lights 120's 120FHP | 1.12±0.03 | 13.0±0.4 | 11.6±0.5 |
| Richland 20's KFSP | 1.13±0.02 | 16.3±0.3 | 16.0±0.3 |
| Marlboro 25's KFSP | 1.13±0.02 | 17.2±0.3 | 15.9±0.3 |
| Winston KFSP | 1.13±0.02 | 17.1±0.3 | 16.3±0.2 |
| Century 25's 100's 100FSP | 1.13±0.02 | 17.5±0.3 | 20.9±0.5 |
| *Alpine KFMSP | 1.14±0.02 | 17.1±0.2 | 16.5±0.2 |
| Viceroy Super Long 100's 100FSP | 1.14±0.02 | 15.9±0.3 | 15.1±0.3 |
| Marlboro KFHP | 1.14±0.02 | 17.0±0.2 | 15.2±0.3 |
| Kool KFMSP | 1.14±0.02 | 16.8±0.3 | 16.8±0.3 |
| Philip Morris International 100FHP | 1.15±0.02 | 16.8±0.4 | 15.6±0.4 |
| Lark Light 100's 100FSP | 1.15±0.03 | 13.9±0.3 | 14.5±0.5 |
| Richland 20's Menthol 100's 100FMSP | 1.15±0.02 | 16.7±0.3 | 17.1±0.3 |
| Craven "A" KFHP | 1.15±0.02 | 15.8±0.4 | 16.3±0.4 |
| Richland 100's (25) 100FMSP | 1.16±0.02 | 16.0±0.3 | 16.3±0.4 |
| Eve Lights 120's 120FMHP | 1.17±0.02 | 13.5±0.2 | 12.0±0.3 |
| Cambridge Full Flavor 100's 100FSP | 1.17±0.02 | 17.2±0.3 | 16.0±0.3 |
| Marlboro KFSP | 1.17±0.02 | 17.4±0.2 | 16.9±0.4 |
| Newport KFMHP | 1.17±0.02 | 15.7±0.2 | 16.5±0.3 |
| Richland (25) KFSP | 1.18±0.02 | 16.6±0.2 | 15.8±0.2 |
| Malibu Filters KFSP | 1.18±0.03 | 16.4±0.3 | 13.6±0.3 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results**

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|--|----------------------|-----------------|--------------|
| *Marlboro KFMSP | 1.18±0.01 | 17.1±0.3 | 15.3±0.2 |
| Marlboro 100's Red 100FSP | 1.19±0.02 | 16.5±0.2 | 17.0±0.2 |
| Dunhill Menthol 100FMHP | 1.19±0.02 | 14.2±0.3 | 17.0±0.4 |
| Marlboro 100's Red 100FHP | 1.19±0.02 | 16.4±0.3 | 16.3±0.4 |
| Salem 100's 100FMSP | 1.19±0.02 | 16.8±0.3 | 16.1±0.3 |
| More 120s 120FSP | 1.19±0.02 | 16.5±0.4 | 21.5±0.4 |
| *Benson & Hedges 100's 100FMSP | 1.20±0.02 | 17.1±0.2 | 16.4±0.3 |
| *Benson & Hedges 100's 100FHP | 1.20±0.03 | 17.3±0.2 | 17.0±0.4 |
| Marlboro 100's 100FSP | 1.22±0.02 | 17.1±0.3 | 16.5±0.4 |
| *Benson & Hedges 100's 100FMHP | 1.22±0.01 | 17.4±0.2 | 17.2±0.3 |
| Lark 100FSP | 1.22±0.02 | 14.7±0.2 | 14.0±0.2 |
| Marlboro 100's 100FHP | 1.22±0.03 | 17.0±0.4 | 16.9±0.6 |
| *Benson & Hedges 100's 100FSP | 1.22±0.02 | 17.3±0.2 | 16.4±0.4 |
| Richland 20's 100's 100FSP | 1.23±0.02 | 16.6±0.3 | 17.3±0.4 |
| Malibu Menthol KFMSP | 1.24±0.02 | 17.2±0.2 | 14.8±0.2 |
| Old Gold Filters KFSP | 1.24±0.02 | 16.8±0.2 | 18.1±0.3 |
| Kool Super Longs 100's 100FMSP | 1.25±0.02 | 16.7±0.3 | 17.0±0.3 |
| Newport KFMSP | 1.26±0.02 | 17.2±0.4 | 18.3±0.5 |
| Benson & Hedges KFHP | 1.26±0.02 | 15.4±0.2 | 12.6±0.3 |
| Pall Mall 100's 100FSP | 1.28±0.02 | 17.0±0.3 | 17.1±0.3 |
| Richland 100's (25) 100FSP | 1.28±0.02 | 17.0±0.3 | 17.3±0.4 |
| Newport 25's KFMSP | 1.28±0.02 | 17.2±0.2 | 18.2±0.4 |
| More 120s 120FMSP | 1.28±0.03 | 16.6±0.3 | 22.0±0.5 |
| Chesterfield RNFSP | 1.30±0.03 | 20.0±0.5 | 13.3±0.4 |
| Max 120s 120FSP | 1.34±0.03 | 17.1±0.4 | 17.7±0.4 |
| Rothmans KFHP | 1.34±0.02 | 19.4±0.4 | 22.5±0.7 |
| Kool RNFMSF | 1.36±0.03 | 21.5±0.8 | 14.5±0.2 |
| Max 120s 120FMSP | 1.38±0.03 | 17.2±0.4 | 17.0±0.5 |
| Dunhill International 100FHP | 1.39±0.03 | 15.2±0.3 | 17.6±0.3 |
| Camel RNFSP | 1.39±0.02 | 22.0±0.3 | 14.2±0.4 |
| Raleigh KNFSP | 1.40±0.03 | 23.8±0.5 | 16.6±0.4 |
| Newport 100's 100FMHP | 1.46±0.02 | 19.2±0.2 | 19.4±0.4 |
| Newport 100's 100FMSP | 1.47±0.03 | 19.3±0.3 | 19.4±0.4 |
| Newport 25's 100FMSP | 1.48±0.02 | 19.5±0.3 | 19.8±0.3 |
| Spring 100's 100FMSP | 1.49±0.03 | 19.3±0.2 | 19.0±0.2 |
| Old Gold Filter 100's 100FSP | 1.50±0.03 | 19.7±0.3 | 19.6±0.4 |
| Craven "A" Filter Standard Size RFHP | 1.51±0.03 | 18.6±0.4 | 13.6±0.3 |
| Lucky Strike RNFSP | 1.52±0.02 | 24.4±0.5 | 16.5±0.3 |
| Tall 120s 120FMSP | 1.57±0.03 | 18.0±0.3 | 16.5±0.5 |
| Herbert Tareyton KNFSP | 1.58±0.03 | 25.1±0.9 | 17.8±0.4 |
| Philip Morris Commander KNFSP | 1.61±0.03 | 26.3±0.5 | 16.2±0.5 |
| Pall Mall KNFSP | 1.64±0.02 | 24.9±0.3 | 16.6±0.4 |
| Tall 120s 120FSP | 1.64±0.03 | 20.4±0.3 | 20.2±0.4 |
| Pall Mall 25's KNFSP | 1.64±0.03 | 24.7±0.3 | 16.5±0.3 |
| Chesterfield KNFSP | 1.65±0.04 | 24.2±0.5 | 15.3±0.5 |

*Retested brand

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted "Nicotine" Results

| Brand | "Nicotine" mg/cig | "Tar" mg/cig | CO mg/cig |
|-------------------------------|----------------------|-----------------|--------------|
| Players RNFHP..... | 1.74±0.03 | 25.2±0.4 | 15.9±0.4 |
| English Ovals KNFHP | 1.87±0.04 | 23.8±0.6 | 15.6±0.5 |
| Old Gold Straights KNFSP..... | 1.89±0.05 | 26.9±0.6 | 18.7±0.5 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|---|--------------|-----------------|----------------------|
| Carlton KFHP | <0.5 | <0.5 | <0.05 |
| Now KFHP | <0.5 | <0.5 | <0.05 |
| Now 100s 100FHP | <0.5 | <0.5 | <0.05 |
| Carlton 100's 100FMHP | 1.0±0.1 | 0.6±0.1 | 0.10±0.01 |
| Carlton 100's 100FHP | 1.1±0.1 | 0.7±0.1 | 0.10±0.01 |
| Carlton KFMSF | 1.4±0.1 | 0.6±0.1 | 0.09±0.01 |
| Now KFSP | 2.3±0.1 | 1.0±0.1 | 0.14±0.01 |
| Now KFMSF | 2.3±0.1 | 1.1±0.1 | 0.13±0.01 |
| Carlton KFSP | 2.4±0.1 | 1.3±0.1 | 0.15±0.01 |
| Kool Ultra KFMSF | 2.7±0.2 | 2.2±0.2 | 0.21±0.02 |
| Now 100s 100FSP | 3.1±0.2 | 1.9±0.1 | 0.21±0.01 |
| Triumph KFSP | 3.8±0.2 | 3.1±0.1 | 0.32±0.02 |
| Now 100s 100FMSP | 4.3±0.2 | 2.5±0.1 | 0.26±0.01 |
| Triumph KFMSF | 4.3±0.2 | 3.5±0.2 | 0.34±0.02 |
| Kent III KFSP | 4.3±0.2 | 3.4±0.2 | 0.35±0.02 |
| Carlton 100's 100FSP | 4.6±0.2 | 3.4±0.1 | 0.35±0.01 |
| Kool Ultra 100's 100FMSP | 5.2±0.3 | 5.0±0.3 | 0.45±0.02 |
| Carlton 120's 120FMSP | 5.5±0.2 | 6.2±0.2 | 0.62±0.03 |
| Merit Ultra Lights KFSP | 5.5±0.2 | 4.4±0.2 | 0.43±0.01 |
| Carlton 120's 120FSP | 5.6±0.2 | 6.5±0.2 | 0.62±0.02 |
| Merit Ultra Lights KFMSF | 5.9±0.2 | 4.5±0.1 | 0.42±0.01 |
| Tareyton Lights KFSP | 6.0±0.2 | 5.2±0.2 | 0.44±0.01 |
| Capri 100FMHP | 6.0±0.2 | 8.9±0.2 | 0.73±0.02 |
| True KFMSF | 6.1±0.4 | 4.9±0.3 | 0.46±0.02 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FHP | 6.2±0.3 | 5.0±0.2 | 0.44±0.02 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FMHP | 6.2±0.2 | 5.2±0.1 | 0.47±0.01 |
| L & M Long Lights 100FSP | 6.3±0.2 | 7.8±0.2 | 0.80±0.02 |
| Capri 100FHP | 6.4±0.2 | 9.2±0.2 | 0.78±0.02 |
| Carlton 100's 100FMSP | 6.4±0.2 | 4.5±0.1 | 0.42±0.01 |
| True KFSP | 6.4±0.3 | 5.1±0.2 | 0.48±0.02 |
| Kent III 100s 100FSP | 6.6±0.3 | 4.7±0.2 | 0.45±0.01 |
| Cambridge Ultra Low Tar 100's 100FSP | 6.6±0.3 | 4.7±0.2 | 0.41±0.01 |
| Kent III 100s 100FHP | 6.8±0.3 | 5.0±0.2 | 0.50±0.03 |
| True 100's 100FMSP | 7.3±0.5 | 6.7±0.4 | 0.61±0.03 |
| Triumph 100s 100FSP | 7.4±0.4 | 5.3±0.3 | 0.50±0.02 |
| Merit Ultra Lights 100's 100FSP | 7.4±0.2 | 5.3±0.1 | 0.50±0.01 |
| True 100's 100FSP | 7.4±0.4 | 6.7±0.3 | 0.61±0.02 |
| Triumph 100s 100FMSP | 7.5±0.2 | 5.4±0.2 | 0.52±0.01 |
| Salem Ultra Lights KFMSF | 7.7±0.2 | 4.9±0.1 | 0.43±0.01 |
| Vantage Ultra Lights KFSP | 8.0±0.2 | 5.5±0.1 | 0.47±0.01 |
| Salem Ultra Lights 100's 100FMSP | 8.0±0.2 | 5.1±0.1 | 0.45±0.01 |
| Merit Ultra Lights 100's 100FMSP | 8.2±0.3 | 6.0±0.2 | 0.53±0.02 |
| Winston Ultra Lights KFSP | 8.5±0.2 | 5.5±0.2 | 0.46±0.01 |
| Tareyton Long Lights 100FSP | 8.8±0.3 | 8.1±0.2 | 0.68±0.01 |
| Winston Ultra Lights 100's 100FSP | 9.0±0.3 | 5.3±0.2 | 0.47±0.02 |
| Kool Lights KFMSF | 9.0±0.2 | 8.2±0.2 | 0.69±0.02 |
| Newport Lights KFMSF | 9.1±0.3 | 8.3±0.3 | 0.75±0.02 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|--|--------------|-----------------|----------------------|
| Kent Golden Lights KFMSp | 9.1±0.4 | 8.3±0.3 | 0.75±0.02 |
| Belair 100's 100FMSP | 9.1±0.2 | 8.8±0.2 | 0.67±0.02 |
| Virginia Slims Lights 100FMHP | 9.2±0.2 | 8.5±0.2 | 0.69±0.02 |
| Virginia Slims Lights 100FHP | 9.3±0.3 | 8.8±0.2 | 0.70±0.02 |
| Vantage Ultra Lights 100s 100FSP | 9.5±0.2 | 5.8±0.1 | 0.50±0.01 |
| Newport Lights 100's 100FMSP | 9.5±0.4 | 9.0±0.3 | 0.83±0.02 |
| Newport Lights KFMHP | 9.5±0.3 | 8.6±0.2 | 0.73±0.02 |
| Kent Golden Lights KFSP | 9.6±0.3 | 8.5±0.2 | 0.74±0.02 |
| Kent Golden Lights KFHP | 9.7±0.4 | 8.8±0.3 | 0.78±0.02 |
| Merit KFSP | 9.8±0.3 | 7.6±0.2 | 0.59±0.01 |
| Belair KFMSp | 9.8±0.2 | 10.7±0.2 | 0.84±0.01 |
| Merit KFHP | 9.8±0.2 | 7.8±0.2 | 0.60±0.01 |
| Newport Lights 100's 100FMHP | 9.9±0.3 | 9.2±0.3 | 0.84±0.02 |
| Silva Thins 100FSP | 10.0±0.2 | 11.7±0.2 | 0.98±0.02 |
| Lucky Strike Lights 100's 100FSP | 10.0±0.3 | 8.9±0.2 | 0.74±0.01 |
| Merit KFMSP | 10.0±0.3 | 7.7±0.2 | 0.58±0.01 |
| Kent Golden Lights 100s 100FMSP | 10.0±0.3 | 9.3±0.2 | 0.85±0.02 |
| Kool Lights 100's 100FMSP | 10.0±0.3 | 8.5±0.2 | 0.73±0.01 |
| More Lights 100s 100FMHP | 10.2±0.3 | 9.0±0.3 | 0.69±0.03 |
| Lucky Strike Lights KFSP | 10.2±0.3 | 8.4±0.3 | 0.68±0.02 |
| Salem Slim Lights 100's 100FMHP | 10.2±0.3 | 9.5±0.2 | 0.77±0.02 |
| Parliament Lights KFHP | 10.3±0.4 | 9.5±0.2 | 0.72±0.02 |
| Bright 100s 100FMSP | 10.3±0.3 | 6.0±0.1 | 0.44±0.01 |
| Parliament Lights KFSP | 10.4±0.2 | 9.1±0.2 | 0.71±0.02 |
| Marlboro Lights KFMSp | 10.4±0.3 | 9.9±0.2 | 0.77±0.01 |
| Dunhill Int Superior Mild 100FHP | 10.5±0.2 | 8.4±0.2 | 0.73±0.01 |
| Silva Thins Menthol 100FMSP | 10.5±0.3 | 12.3±0.3 | 1.05±0.02 |
| Kent Golden Lights 100s 100FSP | 10.5±0.4 | 9.6±0.3 | 0.86±0.02 |
| Malibu Lights 100's 100FSP | 10.6±0.4 | 9.1±0.2 | 0.75±0.02 |
| L & M 30's Lights 100's 100FSP | 10.7±0.3 | 12.6±0.3 | 1.06±0.02 |
| More Lights 100s 100FHP | 10.7±0.3 | 10.0±0.2 | 0.78±0.02 |
| Pall Mall Red Lights KFSP | 10.7±0.3 | 10.3±0.3 | 0.81±0.02 |
| Malibu Lights KFSP | 10.8±0.3 | 10.2±0.2 | 0.79±0.01 |
| Eve Slim Lights 100's 100FMHP | 10.8±0.3 | 12.6±0.3 | 1.00±0.02 |
| Benson & Hedges Multifilter KFSP | 10.8±0.2 | 11.2±0.3 | 0.85±0.02 |
| Old Gold Lights KFSP | 10.9±0.3 | 9.3±0.2 | 0.81±0.02 |
| Eve Slim Lights 100's 100FHP | 11.0±0.2 | 12.8±0.2 | 1.03±0.02 |
| Falcon Lights 100's 100FMSP | 11.0±0.3 | 8.9±0.2 | 0.73±0.02 |
| Players Lights 25's KFMSp | 11.1±0.4 | 10.0±0.2 | 0.71±0.01 |
| Players Lights 25's KFSP | 11.1±0.2 | 10.0±0.2 | 0.72±0.02 |
| Salem Lights 100's 100FMSP | 11.1±0.4 | 9.3±0.3 | 0.74±0.02 |
| Falcon Lights KFSP | 11.2±0.3 | 11.2±0.2 | 0.77±0.02 |
| Kent Golden Lights 100s 100FHP | 11.2±0.4 | 10.2±0.2 | 0.91±0.02 |
| Marlboro Lights 100's 100FMHP | 11.2±0.4 | 10.2±0.2 | 0.81±0.02 |
| Marlboro Lights KFMHP | 11.2±0.3 | 10.2±0.2 | 0.78±0.02 |
| Kool Milds KFMHP | 11.3±0.3 | 11.6±0.3 | 0.88±0.02 |
| Camel Lights KFSP | 11.3±0.3 | 8.8±0.2 | 0.65±0.01 |

Rev. 5/89

Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|--|--------------|-----------------|----------------------|
| Newport Stripes Slim Lights 100FMHP..... | 11.4±0.2 | 9.3±0.2 | 0.76±0.02 |
| Ritz 100 100FHP | 11.5±0.4 | 10.4±0.3 | 0.78±0.02 |
| Ritz 100 100FMHP | 11.5±0.3 | 11.1±0.3 | 0.81±0.02 |
| Eve Lights 120's 120FHP | 11.6±0.5 | 13.0±0.4 | 1.12±0.03 |
| Salem Lights 100's 100FMHP | 11.6±0.2 | 11.3±0.2 | 0.86±0.02 |
| Silva Thins Menthol 100FMHP..... | 11.7±0.3 | 11.1±0.2 | 0.90±0.01 |
| Winston Lights KFHP | 11.7±0.3 | 9.7±0.2 | 0.63±0.01 |
| Doral Ultra Lights 100's 100FSP | 11.7±0.5 | 6.7±0.3 | 0.48±0.02 |
| Camel Lights KFHP | 11.8±0.3 | 9.9±0.2 | 0.64±0.01 |
| Winston Lights 100's 100FHP | 11.8±0.3 | 9.9±0.2 | 0.72±0.02 |
| Merit 100's 100FSP | 11.8±0.3 | 10.0±0.2 | 0.80±0.02 |
| Century 25's Lights (25) KFSP | 11.8±0.3 | 9.7±0.2 | 0.70±0.02 |
| Falcon Lights KFMSP | 11.9±0.4 | 10.2±0.3 | 0.78±0.02 |
| Benson & Hedges Lights 100's 100FMSP | 12.0±0.2 | 10.7±0.2 | 0.81±0.02 |
| Marlboro Lights 100's 100FMSP | 12.0±0.3 | 10.9±0.1 | 0.86±0.01 |
| Merit 100's 100FMSP | 12.0±0.3 | 10.1±0.2 | 0.78±0.02 |
| Eve Lights 120's 120FMHP | 12.0±0.3 | 13.5±0.2 | 1.17±0.02 |
| Pall Mall Lights 100's 100FSP | 12.0±0.3 | 10.3±0.2 | 0.84±0.02 |
| Cambridge Lights KFMSP..... | 12.1±0.3 | 11.9±0.2 | 0.84±0.02 |
| Marlboro Lights KFSP | 12.2±0.3 | 11.2±0.2 | 0.83±0.02 |
| Players KFHP | 12.2±0.2 | 11.7±0.2 | 0.83±0.02 |
| Pall Mall Red Lights 100's 100FSP | 12.2±0.4 | 11.1±0.2 | 0.88±0.02 |
| Marlboro Lights 100's 100FHP | 12.3±0.3 | 10.8±0.2 | 0.85±0.02 |
| Lucky Strike Menthol 100's 100FMSP | 12.3±0.2 | 11.8±0.1 | 0.96±0.02 |
| Players KFMHP | 12.3±0.2 | 11.9±0.2 | 0.82±0.01 |
| Marlboro Lights 25's KFSP | 12.4±0.3 | 11.2±0.2 | 0.80±0.02 |
| Marlboro Lights KFHP | 12.4±0.3 | 11.0±0.2 | 0.82±0.02 |
| Dunhill Menthol Mild 100FMHP | 12.5±0.2 | 10.4±0.2 | 0.96±0.02 |
| Malibu Menthol 100's 100FMSP..... | 12.5±0.3 | 11.6±0.2 | 0.94±0.02 |
| Vantage KFMSP | 12.5±0.3 | 10.0±0.2 | 0.69±0.01 |
| Vantage 100s 100FSP | 12.5±0.3 | 8.8±0.2 | 0.63±0.02 |
| Silva Thins Filters 100FHP | 12.5±0.3 | 12.2±0.2 | 0.97±0.02 |
| Benson & Hedges KFHP | 12.6±0.3 | 15.4±0.2 | 1.26±0.02 |
| Pall Mall Red Filters KFSP..... | 12.6±0.3 | 13.6±0.3 | 1.02±0.02 |
| Lucky Strike KFSP..... | 12.6±0.3 | 11.8±0.3 | 0.89±0.02 |
| Salem Lights KFMSP | 12.6±0.2 | 9.8±0.2 | 0.72±0.02 |
| Kool Milds 100's 100FMSP..... | 12.6±0.4 | 12.0±0.3 | 0.95±0.02 |
| Cambridge Lights KFSP | 12.7±0.3 | 12.3±0.2 | 0.85±0.01 |
| Lucky Strike Filters 100's 100FSP | 12.7±0.2 | 11.9±0.2 | 0.96±0.02 |
| Parliament Lights 100's 100FSP | 12.7±0.2 | 12.0±0.2 | 0.95±0.02 |
| Vantage Menthol 100s 100FMSP..... | 12.7±0.3 | 8.3±0.2 | 0.61±0.01 |
| Players 100's 100FMHP | 12.7±0.3 | 14.0±0.2 | 0.98±0.02 |
| Richland Lights (25) KFSP..... | 12.7±0.3 | 11.5±0.2 | 0.89±0.02 |
| Lucky Strike KFHP..... | 12.8±0.4 | 12.1±0.2 | 0.92±0.02 |
| American Lights KFSP..... | 12.9±0.3 | 11.9±0.2 | 0.91±0.02 |
| L & M KFSP..... | 12.9±0.3 | 13.7±0.2 | 1.08±0.02 |
| Doral Lights 100's 100FSP | 12.9±0.3 | 11.3±0.3 | 0.70±0.02 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|---|--------------|-----------------|----------------------|
| Players 100's 100FHP | 12.9±0.3 | 13.9±0.2 | 0.98±0.02 |
| Kent KFHP | 12.9±0.3 | 11.3±0.2 | 0.86±0.02 |
| Benson & Hedges Lights 100's 100FSP | 13.0±0.3 | 10.7±0.2 | 0.83±0.02 |
| Marlboro Lights 100's 100FSP | 13.0±0.4 | 11.0±0.2 | 0.85±0.02 |
| Raleigh Lights KFSP | 13.1±0.3 | 11.4±0.2 | 0.87±0.02 |
| Kool Milds KFMSP | 13.1±0.3 | 12.3±0.3 | 0.93±0.02 |
| Satin 100FSP | 13.1±0.4 | 11.4±0.3 | 0.97±0.02 |
| Viceroy Lights KFSP | 13.1±0.3 | 11.3±0.3 | 0.88±0.02 |
| Pall Mall Light 100's Low Tar 100FMSP | 13.1±0.3 | 13.3±0.2 | 1.08±0.02 |
| Century 25's Menthol Lights 100's 100FMSP | 13.2±0.3 | 11.5±0.2 | 0.84±0.01 |
| Winston Lights KFSP | 13.2±0.3 | 10.7±0.2 | 0.75±0.01 |
| Lark KFSP | 13.3±0.3 | 14.3±0.3 | 1.11±0.03 |
| Lark Lights KFSP | 13.3±0.3 | 13.4±0.3 | 1.03±0.02 |
| Chesterfield RNFSP | 13.3±0.4 | 20.0±0.5 | 1.30±0.03 |
| Satin 100FMSP | 13.3±0.4 | 11.4±0.3 | 0.97±0.02 |
| Century 25's Lights 100's 100FSP | 13.4±0.3 | 11.9±0.3 | 0.89±0.02 |
| Malibu 100's 100FSP | 13.4±0.3 | 13.9±0.3 | 1.10±0.02 |
| Winston Lights 100's 100FSP | 13.4±0.3 | 11.4±0.2 | 0.81±0.01 |
| Vantage KFSP | 13.5±0.3 | 10.5±0.2 | 0.75±0.02 |
| Richland 20's Lights KFSP | 13.5±0.3 | 11.7±0.3 | 0.90±0.02 |
| Malibu Filters KFSP | 13.6±0.3 | 16.4±0.3 | 1.18±0.03 |
| Craven "A" Filter Standard Size RFHP | 13.6±0.3 | 18.6±0.4 | 1.51±0.03 |
| Doral Menthol Lights 100's 100FMSP | 13.7±0.3 | 12.1±0.3 | 0.73±0.01 |
| Players 25's Lights 100's 100FMSP | 13.7±0.3 | 11.4±0.2 | 0.81±0.01 |
| Magna Lites KFSP | 13.7±0.2 | 9.1±0.2 | 0.64±0.01 |
| Virginia Slims 100FSP | 13.8±0.3 | 15.3±0.2 | 1.07±0.02 |
| American Lights 100's 100FSP | 13.9±0.2 | 13.3±0.2 | 1.08±0.01 |
| Virginia Slims 100FMSP | 13.9±0.3 | 15.1±0.3 | 1.06±0.03 |
| Kent KFSP | 13.9±0.3 | 12.0±0.2 | 0.88±0.02 |
| Lark 100FSP | 14.0±0.2 | 14.7±0.2 | 1.22±0.02 |
| Pall Mall Red Filters 100's 100FSP | 14.0±0.2 | 13.8±0.3 | 1.07±0.02 |
| Richland Lights (25) 100's 100FSP | 14.0±0.2 | 12.4±0.2 | 0.94±0.02 |
| Doral Menthol Lights KFMSP | 14.0±0.2 | 11.7±0.2 | 0.64±0.01 |
| Viceroy Lights 100's 100FSP | 14.1±0.3 | 11.9±0.2 | 0.92±0.02 |
| Players 25's Lights 100's 100FSP | 14.1±0.4 | 11.9±0.3 | 0.86±0.02 |
| L & M Super 100 100FSP | 14.2±0.3 | 13.9±0.2 | 1.12±0.02 |
| Camel RNFSP | 14.2±0.4 | 22.0±0.3 | 1.39±0.02 |
| Richland 20's Lights 100's 100FSP | 14.2±0.4 | 12.1±0.2 | 0.90±0.02 |
| Raleigh Lights 100's 100FSP | 14.3±0.3 | 12.2±0.3 | 0.94±0.02 |
| Kent 100s 100FMSP | 14.4±0.3 | 14.0±0.2 | 1.04±0.01 |
| Kool RNFMSF | 14.5±0.2 | 21.5±0.8 | 1.36±0.03 |
| Cambridge Lights 100's 100FSP | 14.5±0.4 | 12.0±0.2 | 0.87±0.02 |
| Doral Lights KFSP | 14.5±0.4 | 12.1±0.3 | 0.67±0.02 |
| Lark Light 100's 100FSP | 14.5±0.5 | 13.9±0.3 | 1.15±0.03 |
| Viceroy KFSP | 14.5±0.3 | 15.3±0.3 | 0.97±0.02 |
| Cambridge Lights 100's 100FMSP | 14.6±0.4 | 11.9±0.2 | 0.86±0.01 |
| Kent 100s 100FSP | 14.7±0.4 | 13.6±0.3 | 1.02±0.02 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|--|--------------|-----------------|----------------------|
| Raleigh KFSP | 14.7±0.3 | 15.5±0.4 | 0.97±0.03 |
| Saratoga 120's 120FHP | 14.8±0.3 | 14.7±0.2 | 1.07±0.02 |
| Falcon Lights 100's 100FSP | 14.8±0.4 | 12.1±0.2 | 0.85±0.02 |
| Saratoga 120's 120FMHP | 14.8±0.4 | 14.7±0.3 | 1.07±0.02 |
| Malibu Menthol KFMSF | 14.8±0.2 | 17.2±0.2 | 1.24±0.02 |
| Magna KFSP | 14.9±0.2 | 13.9±0.2 | 0.91±0.02 |
| *Virginia Slims Lights 120's 120FMHP | 14.9±0.2 | 14.9±0.2 | 1.08±0.01 |
| Camel Lights 100's 100FSP | 15.0±0.3 | 11.4±0.2 | 0.81±0.01 |
| Viceroy Super Long 100's 100FSP | 15.1±0.3 | 15.9±0.3 | 1.14±0.02 |
| *Virginia Slims Lights 120's 120FHP | 15.2±0.3 | 14.8±0.2 | 1.09±0.02 |
| Marlboro KFHP | 15.2±0.3 | 17.0±0.2 | 1.14±0.02 |
| Chesterfield KNFSP | 15.3±0.5 | 24.2±0.5 | 1.65±0.04 |
| *Marlboro KFMSF | 15.3±0.2 | 17.1±0.3 | 1.18±0.01 |
| Camel Filters KFSP | 15.4±0.2 | 15.6±0.3 | 1.01±0.02 |
| Rothmans Special Mild KFHP | 15.5±0.4 | 13.6±0.2 | 1.03±0.02 |
| St. Moritz Filter 100s 100FSP | 15.5±0.2 | 14.9±0.2 | 1.08±0.02 |
| Philip Morris International 100FHP | 15.6±0.4 | 16.8±0.4 | 1.15±0.02 |
| English Ovals KNFHP | 15.6±0.5 | 23.8±0.6 | 1.87±0.04 |
| Richland (25) KFMSF | 15.6±0.3 | 16.2±0.3 | 1.09±0.02 |
| Richland (25) KFSP | 15.8±0.2 | 16.6±0.2 | 1.18±0.02 |
| Marlboro 25's KFSP | 15.9±0.3 | 17.2±0.3 | 1.13±0.02 |
| Players RNFHP | 15.9±0.4 | 25.2±0.4 | 1.74±0.03 |
| Tareyton KFSP | 15.9±0.3 | 14.3±0.3 | 0.98±0.02 |
| Cambridge Full Flavor 100's 100FSP | 16.0±0.3 | 17.2±0.3 | 1.17±0.02 |
| Raleigh 100's 100FSP | 16.0±0.3 | 15.5±0.3 | 0.99±0.02 |
| Richland 20's KFSP | 16.0±0.3 | 16.3±0.3 | 1.13±0.02 |
| Cambridge Full Flavor KFSP | 16.1±0.3 | 17.1±0.3 | 1.09±0.01 |
| Salem 100's 100FMSP | 16.1±0.3 | 16.8±0.3 | 1.19±0.02 |
| Richland 20's KFMSF | 16.1±0.3 | 16.4±0.4 | 1.05±0.02 |
| Philip Morris Commander KNFSP | 16.2±0.5 | 26.3±0.5 | 1.61±0.03 |
| Philip Morris International 100FMHP | 16.2±0.4 | 16.9±0.2 | 1.08±0.02 |
| Craven "A" KFHP | 16.3±0.4 | 15.8±0.4 | 1.15±0.02 |
| Winston KFSP | 16.3±0.2 | 17.1±0.3 | 1.13±0.02 |
| Harley Davidson KFSP | 16.3±0.4 | 14.1±0.3 | 0.98±0.02 |
| Magna KFHP | 16.3±0.4 | 14.1±0.3 | 0.90±0.01 |
| Richland 100's (25) 100FMSP | 16.3±0.4 | 16.0±0.3 | 1.16±0.02 |
| Marlboro 100's Red 100FHP | 16.3±0.4 | 16.4±0.3 | 1.19±0.02 |
| *Benson & Hedges 100's 100FMSP | 16.4±0.3 | 17.1±0.2 | 1.20±0.02 |
| Kool KFMSF | 16.4±0.4 | 16.2±0.4 | 1.12±0.03 |
| *Benson & Hedges 100's 100FSP | 16.4±0.4 | 17.3±0.2 | 1.22±0.02 |
| Newport Stripes 100FMHP | 16.5±0.2 | 12.2±0.2 | 0.91±0.02 |
| *Alpine KFMSF | 16.5±0.2 | 17.1±0.2 | 1.14±0.02 |
| Newport KFMSF | 16.5±0.3 | 15.7±0.2 | 1.17±0.02 |
| Marlboro 100's 100FSP | 16.5±0.4 | 17.1±0.3 | 1.22±0.02 |
| Tall 120s 120FMSP | 16.5±0.5 | 18.0±0.3 | 1.57±0.03 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|--|----------------------|-------------------------|------------------------------|
| Lucky Strike RNFSP..... | 16.5±0.3 | 24.4±0.5 | 1.52±0.02 |
| Pall Mall 25's KNFSP..... | 16.5±0.3 | 24.7±0.3 | 1.64±0.03 |
| Newport Stripes 100FHP..... | 16.6±0.4 | 12.3±0.3 | 0.94±0.02 |
| Pall Mall KNFSP..... | 16.6±0.4 | 24.9±0.3 | 1.64±0.02 |
| Camel Filters KFHP..... | 16.6±0.3 | 16.8±0.2 | 1.06±0.02 |
| Raleigh KNFSP..... | 16.6±0.4 | 23.8±0.5 | 1.40±0.03 |
| Salem KFMSP..... | 16.7±0.3 | 15.9±0.3 | 1.04±0.02 |
| Kool KFMSP..... | 16.8±0.3 | 16.8±0.3 | 1.14±0.02 |
| Tareyton 100's 100FSP..... | 16.8±0.4 | 14.1±0.2 | 1.02±0.02 |
| Marlboro 100's 100FHP..... | 16.9±0.6 | 17.0±0.4 | 1.22±0.03 |
| Winston KFHP..... | 16.9±0.3 | 16.8±0.3 | 1.06±0.02 |
| Marlboro KFSP..... | 16.9±0.4 | 17.4±0.2 | 1.17±0.02 |
| Old Gold Lights 100s 100FSP..... | 17.0±0.3 | 12.3±0.2 | 0.91±0.02 |
| Kool Super Longs 100's 100FMSP..... | 17.0±0.3 | 16.7±0.3 | 1.25±0.02 |
| Marlboro 100's Red 100FSP..... | 17.0±0.2 | 16.5±0.2 | 1.19±0.02 |
| *Benson & Hedges 100's 100FHP..... | 17.0±0.4 | 17.3±0.2 | 1.20±0.03 |
| Dunhill Menthol 100FMHP..... | 17.0±0.4 | 14.2±0.3 | 1.19±0.02 |
| Max 120s 120FMSP..... | 17.0±0.5 | 17.2±0.4 | 1.38±0.03 |
| Richland 20's Menthol 100's 100FMSP..... | 17.1±0.3 | 16.7±0.3 | 1.15±0.02 |
| Pall Mall 100's 100FSP..... | 17.1±0.3 | 17.0±0.3 | 1.28±0.02 |
| St. Moritz Menthol 100FMSP..... | 17.1±0.4 | 14.9±0.3 | 0.96±0.01 |
| *Benson & Hedges 100's 100FMHP..... | 17.2±0.3 | 17.4±0.2 | 1.22±0.01 |
| Doral Full Flavor 100's 100FSP..... | 17.2±0.3 | 14.8±0.2 | 0.84±0.01 |
| Richland 100's (25) 100FSP..... | 17.3±0.4 | 17.0±0.3 | 1.28±0.02 |
| Richland 20's 100's 100FSP..... | 17.3±0.4 | 16.6±0.3 | 1.23±0.02 |
| Dunhill International 100FHP..... | 17.6±0.3 | 15.2±0.3 | 1.39±0.03 |
| Max 120s 120FSP..... | 17.7±0.4 | 17.1±0.4 | 1.34±0.03 |
| Herbert Tareyton KNFSP..... | 17.8±0.4 | 25.1±0.9 | 1.58±0.03 |
| Century 25's (25) KFSP..... | 17.8±0.3 | 15.3±0.3 | 0.99±0.02 |
| Old Gold Filters KFSP..... | 18.1±0.3 | 16.8±0.2 | 1.24±0.02 |
| Newport 25's KFMSP..... | 18.2±0.4 | 17.2±0.2 | 1.28±0.02 |
| Newport KFMSP..... | 18.3±0.5 | 17.2±0.4 | 1.26±0.02 |
| Winston 100's 100FSP..... | 18.6±0.3 | 16.9±0.2 | 1.06±0.02 |
| Camel Filters 100's 100FSP..... | 18.7±0.3 | 17.5±0.2 | 1.06±0.01 |
| Old Gold Straights KNFSP..... | 18.7±0.5 | 26.9±0.6 | 1.89±0.05 |
| Spring 100's 100FMSP..... | 19.0±0.2 | 19.3±0.2 | 1.49±0.03 |
| Newport 100's 100FMHP..... | 19.4±0.4 | 19.2±0.2 | 1.46±0.02 |
| Newport 100's 100FMSP..... | 19.4±0.4 | 19.3±0.3 | 1.47±0.03 |
| More Lights 120s 120FMSP..... | 19.6±0.5 | 12.2±0.4 | 0.99±0.03 |
| Doral Full Flavor KFSP..... | 19.6±0.4 | 17.4±0.2 | 0.92±0.01 |
| Old Gold Filter 100's 100FSP..... | 19.6±0.4 | 19.7±0.3 | 1.50±0.03 |
| Newport 25's 100FMSP..... | 19.8±0.3 | 19.5±0.3 | 1.48±0.02 |
| More Lights 120s 120FSP..... | 20.2±0.5 | 12.9±0.2 | 0.98±0.01 |
| Tall 120s 120FSP..... | 20.2±0.4 | 20.4±0.3 | 1.64±0.03 |
| Century 25's 100's 100FSP..... | 20.9±0.5 | 17.5±0.3 | 1.13±0.02 |

*Retested brand

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31
Sorted Carbon Monoxide Results**

| Brand | CO mg/cig | "Tar" mg/cig | "Nicotine" mg/cig |
|-------------------------|----------------------|-------------------------|------------------------------|
| More 120s 120FSP | 21.5±0.4 | 16.5±0.4 | 1.19±0.02 |
| More 120s 120FMSP | 22.0±0.5 | 16.6±0.3 | 1.28±0.03 |
| Rothmans KFHP | 22.5±0.7 | 19.4±0.4 | 1.34±0.02 |

Rev. 5/89

Appendix C -- Butt Lengths

PM3000763002

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|---|--------------------|
| Alpine KFMSF | 27,28,29 |
| American Lights KFSPS | 32,33,34 |
| American Lights 100's 100FSP | 34,35 |
| Belair KFMSF | 35,36 |
| Belair 100's 100FMSF | 38,39,40 |
| Benson & Hedges KFHP | 33,34 |
| Benson & Hedges 100's 100FHP | 35,36 |
| Benson & Hedges 100's 100FMHP | 35,36 |
| Benson & Hedges 100's 100FSP | 34,35,36 |
| Benson & Hedges 100's 100FMSF | 34,35,36 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FHP | 38,39,40 |
| Benson & Hedges Deluxe Ultra Lights 100's 100FMHP | 39,40 |
| Benson & Hedges Lights 100's 100FSP | 38,39,40 |
| Benson & Hedges Lights 100's 100FMSF | 38,39,40 |
| Benson & Hedges Multifilter KFSP | 32,33,34 |
| Bright 100s 100FMSF | 38 |
| Cambridge Full Flavor KFSP | 28 |
| Cambridge Full Flavor 100's 100FSP | 38,39,40 |
| Cambridge Lights KFSP | 33,34 |
| Cambridge Lights KFMSF | 33,34 |
| Cambridge Lights 100's 100FSP | 38,39,40 |
| Cambridge Lights 100's 100FMSF | 38,39,40 |
| Cambridge Ultra Low Tar 100's 100FSP | 38,39,40 |
| Camel RNFSP | 23 |
| Camel Filters KFHP | 25,26 |
| Camel Filters KFSP | 28,29 |
| Camel Filters 100's 100FSP | 34,35,36 |
| Camel Lights KFHP | 29,30,31 |
| Camel Lights KFSP | 33,34,35 |
| Camel Lights 100's 100FSP | 37,38 |
| Capri 100FHP | 35,36 |
| Capri 100FMHP | 35,36 |
| Carlton KFHP | 37,38,39,40,41 |
| Carlton KFSP | 32,33,33.5,34 |
| Carlton KFMSF | 32,33,34 |
| Carlton 100's 100FHP | 37,38,39 |
| Carlton 100's 100FMHP | 37,38,39 |
| Carlton 100's 100FSP | 34,35,36 |
| Carlton 100's 100FMSF | 34,35,36 |
| Carlton 120's 120FSP | 37,37.5,38,38.5,39 |
| Carlton 120's 120FMSF | 37,38,39 |
| Century 25's (25) KFSP | 29,30 |
| Century 25's 100's 100FSP | 37,38,39 |
| Century 25's Lights (25) KFSP | 33,34 |
| Century 25's Lgts 100's 100FSP | 37,38,39 |
| Century 25's Menthol Lights 100's | 38,39 |
| Chesterfield RNFSP | 23 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|--|--------------------------|
| Chesterfield KNFSP | 23 |
| Doral Full Flavor KFSP | 27,27.5,28 |
| Doral Full Flavor 100's 100FSP | 38,39 |
| Doral Lights KFSP | 33,33.5,34,34.5,35 |
| Doral Menthol Lights KFMSP | 34,34.5,35 |
| Doral Lights 100's 100FSP | 37,38,39 |
| Doral Menthol Lights 100's 100FMSP | 36,37,37.5,38,38.5,39,40 |
| Doral Ultra Lights 100's 100FSP | 37,38 |
| English Ovals KNFHP | 23 |
| Eve Slim Lights 100's 100FHP | 37,38,39 |
| Eve Slim Lights 100's 100FMHP | 37,38,39 |
| Eve Lights 120's 120FHP | 37,38,38.5,39 |
| Eve Lights 120's 120FMHP | 37,38,39 |
| Falcon Lights KFSP | 34,34.5,35,36 |
| Falcon Lights KFMSP | 34,34.5,35,36 |
| Falcon Lights 100's 100FSP | 38,39,40 |
| Falcon Lights 100's 100FMSP | 38,39 |
| Harley Davidson KFSP | 28,28.5,29 |
| Herbert Tareyton KNFSP | 23 |
| Kent Golden Lights KFHP | 32,32.5,33,33.5,34 |
| Kent Golden Lights KFSP | 34,34.5,35,35.5,36 |
| Kent Golden Lights KFMSP | 34,35,36 |
| Kent Golden Lights 100s 100FHP | 35,36,37 |
| Kent Golden Lights 100s 100FSP | 36,37,38 |
| Kent Golden Lights 100s 100FMSP | 34,35,36,37,38 |
| Kent KFHP | 27,28,29 |
| Kent KFSP | 28,28.5,29,30 |
| Kent 100s 100FSP | 36,37 |
| Kent 100s 100FMSP | 36,37,38 |
| Kent III KFSP | 34,35 |
| Kent III 100s 100FHP | 36,37,38,39 |
| Kent III 100s 100FSP | 35,36,37,37.5,38 |
| Kool RNFMSF | 23 |
| Kool KFMHP | 26,27 |
| Kool KFMSP | 29,30 |
| Kool Super Longs 100's 100FMSP | 35,36 |
| Kool Lights KFMSP | 33,34,35 |
| Kool Lights 100's 100FMSP | 38,39 |
| Kool Milds KFMHP | 28,29,30 |
| Kool Milds KFMSP | 34,35 |
| Kool Milds 100's 100FMSP | 39,40 |
| Kool Ultra KFMSP | 34,35 |
| Kool Ultra 100's 100FMSP | 39,40 |
| L & M KFSP | 33,33.5,34 |
| L & M Super 100 100FSP | 37,38 |
| L & M Long Lights 100FSP | 36,37,38,39,40 |
| L & M 30's Lights 100's 100FSP | 36,37,38,39,40 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|--|--------------------|
| Lark KFSP | 32,33,33.5,34 |
| Lark 100FSP | 39,40 |
| Lark Lights KFSP | 32,33,34 |
| Lark Light 100's 100FSP | 37,38,39 |
| Lucky Strike RNFSP | 23 |
| Lucky Strike KFHP | 31,32,33,34,35 |
| Lucky Strike KFSP | 32,33,34 |
| Lucky Strike Filters 100's 100FSP | 34,35,36 |
| Lucky Strike Menthol 100's 100FMSP | 34,35,36 |
| Lucky Strike Lights KFSP | 32,33,33.5,34 |
| Lucky Strike Lights 100's 100FSP | 34,35,36 |
| Magna KFHP | 26,26.5 |
| Magna KFSP | 27,28,29 |
| Magna Lites KFSP | 33,34,35,36 |
| Malibu Filters KFSP | 26.5,27 |
| Malibu Menthol KFMSP | 26,26.5,27 |
| Malibu 100's 100FSP | 34,35,35.5,36,38 |
| Malibu Menthol 100's 100FMSP | 35,36 |
| Malibu Lights KFSP | 33 |
| Malibu Lights 100's 100FSP | 33,34,35,37 |
| Marlboro KFHP | 26,27 |
| Marlboro KFSP | 28,29 |
| Marlboro KFMSP | 27,28,29 |
| Marlboro 100's 100FHP | 34,35 |
| Marlboro 100's 100FSP | 34,35 |
| Marlboro 25's KFSP | 27,27.5,28,28.5,29 |
| Marlboro Lights KFHP | 33.5,34,34.5 |
| Marlboro Lights KFMHP | 33,34,35 |
| Marlboro Lights KFSP | 33,34,35 |
| Marlboro Lights KFMSP | 33,34,35 |
| Marlboro Lights 100's 100FHP | 38,39,40 |
| Marlboro Lights 100's 100FHMP | 38,39,40 |
| Marlboro Lights 100's 100FSP | 38,39,40 |
| Marlboro Lights 100's 100FMSP | 38,39,40 |
| Marlboro Lights 25's KFSP | 33,34,35 |
| Marlboro 100's Red 100FHP | 34,35 |
| Marlboro 100's Red 100FSP | 34,35,36 |
| Max 120s 120FSP | 37,38,39 |
| Max 120s 120FMSP | 37,38,39,40 |
| Merit KFHP | 34,35,35.5,36 |
| Merit KFSP | 34,34.5,35,35.5,36 |
| Merit KFMSP | 35,36 |
| Merit 100's 100FSP | 35,36 |
| Merit 100's 100FMSP | 38,39,40,41 |
| Merit Ultra Lights KFSP | 34,35,35.5,36,36.5 |
| Merit Ultra Lights KFMSP | 34,35,36 |
| Merit Ultra Lights 100's 100FSP | 38,38.5,39,39.5 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|---|----------------------------|
| Merit Ultra Lights 100's 100FMSP..... | 39,40 |
| More 120s 120FSP | 41,41.5,42 |
| More 120s 120FMSP | 42,43 |
| More Lights 100s 100FHP | 37,37.5,38 |
| More Lights 100s 100FMHP | 37,38 |
| More Lights 120s 120FSP | 42,43 |
| More Lights 120s 120FMSP | 42,43 |
| Newport KFMHP | 27,28,29,30 |
| Newport KFMSP | 28,29 |
| Newport 100's 100FMHP | 37,38 |
| Newport 100's 100FMSP | 36,37 |
| Newport 25's KFMSP | 28,29,30 |
| Newport 25's 100FMSP | 36,37 |
| Newport Lights KFMHP | 32,33 |
| Newport Lights KFMSP | 34,35,36 |
| Newport Lights 100's 100FMHP | 35,36,37 |
| Newport Lights 100's 100FMSP | 35,36,37,38,39 |
| Newport Stripes 100FHP | 35,36,36.5,37 |
| Newport Stripes 100FMHP | 35,36,36.5,37,38 |
| Newport Stripes Slim Lights 100FMHP | 37,38,39 |
| Now KFHP | 34,35 |
| Now KFSP | 33,34,34.5,35 |
| Now KFMSP | 33,34,34.5,35 |
| Now 100s 100FHP | 38,39 |
| Now 100s 100FSP | 37,38,39 |
| Now 100s 100FMSP | 37,37.5,38,39 |
| Old Gold Straights KNFSP | 23 |
| Old Gold Filters KFSP | 28,29,30 |
| Old Gold Filter 100's 100FSP | 34,35,36,36.5,37,37.5 |
| Old Gold Lights KFSP | 34,35,36 |
| Old Gold Lights 100s 100FSP | 35,36,36.5,37 |
| Pall Mall KNFSP | 23 |
| Pall Mall 25's KNFSP | 23 |
| Pall Mall 100's 100FSP | 34,35,35.5,36 |
| Pall Mall Lights 100's 100FSP | 36,37,38,39 |
| Pall Mall Light 100's Low Tar 100FMSP | 34,35,36 |
| Pall Mall Red Filters KFSP | 24,26,26.5,27,27.5,28,28.5 |
| Pall Mall Red Filters 100's 100FSP | 35,36 |
| Pall Mall Red Lights KFSP | 32,32.5,33,33.5 |
| Pall Mall Red Lights 100's 100FSP | 35,36 |
| Parliament Lights KFHP | 32.5,33 |
| Parliament Lights KFSP | 32.5,33,33.5,34 |
| Parliament Lights 100's 100FSP | 38,38.5,39 |
| Philip Morris Commander KNFSP | 23 |
| Philip Morris International 100FHP | 34.5,35,35.5 |
| Philip Morris International 100FMHP | 34,35 |
| Players RNFHP | 23 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|---|--------------------|
| Players KFHP | 34,35,36 |
| Players KFMHP | 34,35,36 |
| Players 100's 100FHP | 38,38.5,39 |
| Players 100's 100FMHP | 38,39,40 |
| Players Lights 25's KFSP | 33,33.5,34,34.5, |
| Players Lights 25's KFMSP | 33.5,34,34.5 |
| Players 25's Lights 100's 100FSP | 38,38.5,39,39.5 |
| Players 25's Lights 100's 100FMSP | 38.5,39,40 |
| Raleigh KNFSP | 23 |
| Raleigh KFSP | 29,30 |
| Raleigh 100's 100FSP | 35,36 |
| Raleigh Lights KFSP | 33,34,35,36 |
| Raleigh Lights 100's 100FSP | 39,40 |
| Richland 20's KFSP | 29,30 |
| Richland 20's KFMSP | 29,30 |
| Richland 20's 100's 100FSP | 35,36 |
| Richland 20's Menthol 100's 100FMSP | 35,36 |
| Richland 20's Lights KFSP | 35,36 |
| Richland 20's Lights 100's 100FSP | 39,40 |
| Richland (25) KFSP | 29,30 |
| Richland (25) KFMSP | 29,30 |
| Richland 100's (25) 100FSP | 34,34.5,35 |
| Richland 100's (25) 100FMSP | 35,36 |
| Richland Lights (25) KFSP | 35,36 |
| Richland Lights (25) 100's 100FSP | 39,40 |
| Ritz 100 100FHP | 37.5,38,38.5,39 |
| Ritz 100 100FMHP | 37,38,39 |
| Salem KFMSP | 27.5,28 |
| Salem 100's 100FMSP | 34,35 |
| Salem Lights KFMSP | 33,34,35 |
| Salem Lights 100's 100FMHP | 37,38,39,39.5,40 |
| Salem Lights 100's 100FMSP | 37,37.5,38 |
| Salem Slim Lights 100's 100FMHP | 36,37,37.5,38,39 |
| Salem Ultra Lights KFMSP | 33.5,34,34.5 |
| Salem Ultra Lights 100's 100FMSP | 37,37.5,38,38.5 |
| Saratoga 120's 120FHP | 38,39,39.5 |
| Saratoga 120's 120FMHP | 37,39 |
| Satin 100FSP | 34,35,36,37 |
| Satin 100FMSP | 34,35,36,37 |
| Silva Thins Filters 100FHP | 38,39,39.5 |
| Silva Thins Menthol 100FMHP | 37,38,39,40 |
| Silva Thins 100FSP | 34,35,35.5,36 |
| Silva Thins Menthol 100FMSP | 34,35,36,37, |
| Spring 100's 100FMSP | 35,36,37 |
| Tall 120s 120FSP | 37,37.5,38,38.5,39 |
| Tall 120s 120FMSP | 37,37.5,38,38.5,39 |
| Tareyton KFSP | 26,26.5,27,28 |

Rev. 5/89

**Tobacco Institute Testing Laboratory
Market Sample 31**

Butt Lengths

| Brand | Length - mm |
|--|--------------------------|
| Tareyton 100's 100FSP | 33,34,34.5,35,35.5,36,37 |
| Tareyton Lights KFSP | 34,34.5,35,35.5,36 |
| Tareyton Long Lights 100FSP | 34,34.5,35,35.5,36,37 |
| Triumph KFSP | 34,34.5,35,35.5,36 |
| Triumph KFMSF | 34,35,36 |
| Triumph 100s 100FSP | 36,36.5,37,38,38.5 |
| Triumph 100s 100FMSP | 35,36,36.5,37,38,38.5 |
| True KFSP | 32,32.5,33,34 |
| True KFMSF | 32,32.5,33,34.5,35 |
| True 100's 100FSP | 36,36.5,37 |
| True 100's 100FMSP | 35,35.5,36,36.5,37,37.5 |
| Vantage KFSP | 32,32.5,33,34 |
| Vantage KFMSF | 32.5,33 |
| Vantage 100s 100FSP | 35.5,36,37,37.5,38 |
| Vantage Menthol 100s 100FMSP | 37,37.5,38,38.5 |
| Vantage Ultra Lights KFSP | 34,34.5 |
| Vantage Ultra Lights 100s 100FSP | 37,37.5,38,38.5 |
| Viceroy KFSP | 29,30 |
| Viceroy Super Long 100's 100FSP | 35,36 |
| Viceroy Lights KFSP | 33,34,35,36 |
| Viceroy Lights 100's 100FSP | 39,40 |
| Virginia Slims 100FSP | 34,34.5,35 |
| Virginia Slims 100FMSP | 34.5,35 |
| Virginia Slims Lights 100FHP | 39,39.5,40 |
| Virginia Slims Lights 100FMHP | 38,38.5,39,39.5 |
| Virginia Slims Lights 120's 120FHP | 38,39,40 |
| Virginia Slims Lights 120's 120FMHP | 38,39,40 |
| Winston KFHP | 25,26 |
| Winston KFSP | 27,28,29 |
| Winston 100's 100FSP | 34,34.5,35,35.5 |
| Winston Lights KFHP | 29.5,30,30.5,31 |
| Winston Lights KFSP | 33,33.5,34,34.5,35 |
| Winston Lights 100's 100FHP | 37.5,38 |
| Winston Lights 100's 100FSP | 37.5,38,38.5 |
| Winston Ultra Lights KFSP | 33.5,34,35 |
| Winston Ultra Lights 100's 100FSP | 37.5,38,38.5 |
| Craven "A" KFHP | 24 |
| Craven "A" Filter Standard Size RFHP | 23 |
| Dunhill International 100FHP | 30.5,31 |
| Dunhill Menthol 100FMHP | 30.5,31 |
| Dunhill Menthol Mild 100FMHP | 31,32 |
| Dunhill International Superior Mild 100FHP | 30.5,31 |
| Rothmans KFHP | 23.5,24 |
| Rothmans Special Mild KFHP | 26.5,27 |
| St. Moritz Filter 100s 100FSP | 35,35.5,36 |
| St. Moritz Menthol 100FMSP | 35,35.5 |

Rev. 5/89